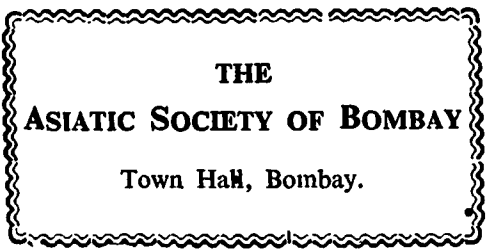

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REPORT

OF THE

BOMBAY CHAMBER OF COMMERCE

FOR THE

YEAR 1857-58.

1335209

PRESENTED TO THE ANNUAL GENERAL MEETING
HELD ON THE 29TH SEPTEMBER 1858.

Bombay:
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1858.


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BOMBAY CHAMBER OF COMMERCE,

ESTABLISHED 22ND SEPTEMBER 1836.

List of Members.

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" William Nicol & Co.
" Robert Strong & Co.
" Ewart, Latham, & Co.
" Cardwell, Parsons, & Co.
" Wallace & Co.
" Grey & Co.
" W. and A. Graham & Co.
" Peel, Cassels, & Co.
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" Dadabhoy Hormusjee Cama & Co.
P. and O. S. N. Company.
Oriental Bank Corporation.
The Commercial Bank of India.
The Chartered Mercantile Bank of India, London, and China.
The Chartered Bank of India, Australia, and China.

COMMITTEE FOR 1857-58.

John Fleming, Esq., *Chairman.*
John Campbell, Esq., *Deputy Chairman.*
Henry Scott, Esq.,
Robert Ryrie, Esq.,
Michael Scott, Esq.,* } *Members.*

* Left for Europe in May last, and was succeeded by James Graham, Esq.

COMMITTEE FOR 1858-59.

Robert Ryrie Esq., *Chairman.*
Archibald Robertson, Esq., *Deputy Chairman.*
Walter Cassels, Esq.,
Fielding Scovell, Esq.,
Robert Wallace, Esq., } *Members.*

Messrs. Ritchie, Steuart, & Co., *Treasurers.*
John Mawson, *Secretary,* (on leave to Europe.)
J. A. Crowe, *Acting Secretary.*
Mackoondrow Bhawoo, *Clerk.*

REPORT.

YOUR Committee has now to report upon its proceedings, and on the subjects which have engaged the attention of the Chamber during the past year :—

RAILWAY COMMUNICATION.

The Chamber are indebted to the courtesy of Mr. Berkley, Chief Engineer of the Great Indian Peninsula Railway, and of Mr. Lane, of the Bombay and Baroda Railway, for the following valuable Memorandums of the progress made during the past year in their respective lines :—

GREAT INDIAN PENINSULA RAILWAY COMPANY.—"The length of Railway that was open for public traffic at the end of 1857, was 88½ miles, but it was increased to 130½ miles in June 1858.

"The total length of line opened, already under construction, and to be commenced immediately, is 1,128 miles.

"The transactions of this Company appear to have been but slightly affected by the great revolt which has thrown so many large districts into anarchy and disorder. The only impediment which they have encountered has been in the Province of Candeish, where the insurrection of the Bheels for a while prevented the Engineers from prosecuting their field work. On the other hand, a remarkable improvement has been manifest in the large and steady growth of the public traffic, both in the number of Passengers and the tonnage of Goods.

"The following comparative receipts of the week ending 15th

August 1858, and of the corresponding week in 1857, may be taken as a fair indication of this :—

Statement of Traffic, Week ending 15th August 1858.

	Coaching.						Merchandise.			Total.		
	Number of Passengers.	Amount.					Amount.					
Miles		*Rs.*	*a.*	*p.*			*Rs.*	*a.*	*p.*	*Rs.*	*a.*	*p.*
Length of Line...130½	16,048	10,125	3	3			8,508	4	1	18,633	7	4
Ditto ditto ... 88½	11,297	5,432	0	10			2,614	9	7	8,046	10	5

" By this statement it appears that the number of Passengers had been increased by nearly 5,000 in one week, and that the receipts for Merchandise were more than three-fold the amount of last year, although the addition to the length of the line was not quite one-half.

" The total number of Passengers conveyed in the year 1856 was 585,165, consisting of—

First Class.....	6,120
Second Class.....	34,193
Third Class.....	544,852

While during only the first six months of the present year the number has amounted to 436,648, consisting of—

First Class.....	6,155
Second Class.....	18,418
Third Class.....	412,075

" During the whole of the year 1856, the quantity of Goods conveyed by Railway was 70,925 tons, while for only the half year ending 30th June 1858 it amounted to 64,941 tons.

" The Company's receipts have increased as follows :—

From 30th June 1856 to 30th June 1857.....	£58,165
Do. do. 1857 do. 1858.....	78,867

And the net dividend during the last half-year has exceeded the Government guarantee of 5 per cent.

" The operations of constructing the extension of the Great Indian Peninsula lines have proceeded with great activity. The heavy works upon the Bhore Ghaut Incline are still in progress

between the foot of the Incline and Khandalla; but from Khandalla to the Lanowlee summit, a distance of two and half miles, the Incline was completed on June 14th last, so far as to admit of its being opened for public traffic together with the extension to Poona. From Poona to Deksal a further length of sixty-three miles of the South-eastern extension is in a very forward state, and will, in all probability, be opened next November, which will be two months earlier than the period of completion that was contracted for. The opening of this section will contribute greatly to the accommodation of the trade of the Nizam's Territory, in the direction of Sholapore, as it runs parallel to the main road, and as the station of Deksal, which is only one and a quarter mile from it, will be approached by a road now being made expressly for that purpose. The rest of the line to Sholapore is making rapid progress, and will, no doubt, be finished in the autumn of 1859.)

"The Madras Company having at length obtained the sanction and guarantee of the Government for their line viâ Cuddapa to the River Krishna, the Great Indian Peninsula Railway Company will shortly take measures for proceeding with the construction of their remaining portion of the Bombay and Madras Railway from Sholapore to the River Krishna, so that the whole of that important trunk line will be finished simultaneously, or nearly so.

"It seems very advisable that a branch of this Railway should be constructed from Sholapore to Hyderabad, and the Great Indian Peninsula Railway Company have already brought it to the notice of the Bombay Government as a portion of their project.

"Upon the North-eastern extension, or Calcutta line, the heavy works from Wassind station to the foot of the Thul Ghaut Incline have made rapid progress during the past year, and in all probability this section will be opened before the end of next year. The works upon the lower part of the Thul Ghaut Incline are also in course of construction. The route of the upper portion of the Incline has been finally determined upon, and the Contractors will begin their operations upon it at the close of the monsoon. The construction of the line from Egutpoora, the summit of the Thul Ghaut Incline, to Bhosawul in Candeish, a distance of 190 miles, has been in the hands of the Company's Contractors for nine months, and considerable progress has already been made along the first eighty miles. From Bhosawul to

Jubbulpore, a further length of 332 miles, the whole line has lately been let by contract in London, and no time will be lost in commencing its construction, so that that long and important Section may be completed in about three years from this date.

"The Company have also received Tenders for making the branch line from Bhosawul to Oomrawuttee and Nagpore, the early completion of which is a matter of such great commercial importance, in order that the Cotton of Berar may be carried to the port of Bombay with the economy and facilities of a direct line of Railway. In addition to these lines, the Great Indian Peninsula Railway Company have applied to Government for permission to survey an extension of their Railway from the valley of the Nerbudda up to Agra, as it would afford the shortest and cheapest line from Bombay to Agra, and one which could be much sooner completed for public traffic than any other which the country admits of. In reply to this application they have received the sanction of the East India Company for the survey of a branch to Indore, the extension to Agra having been reserved for further consideration. It is, however, to be hoped that the exigencies of the country, and the manifest advantages of opening a Railway communication between Bombay and Agra as soon as possible, will induce the Government to authorise this Company to proceed with the study of a line, the prospective merits of which are so considerable.

"In the last Report it was made a subject of congratulation that the operations of the Great Indian Peninsula Railway Company had given simultaneous employment to 46,000 hands. It may now, however, be stated, as a further proof of the great resources of this part of India for the supply of labor, that that large number has during the past year been increased to nearly 70,000, notwithstanding the unsettled state of Candeish and other districts either within or in the neighbourhood of the Bombay Presidency.

"The Electric Telegraph, designed to promote the regularity and safety of the Railway, has been completed from Callian to Poona, and is being extended to Bombay and Wassind."

BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY COMPANY. —"During the past year the operations of this Company between Surat and Ahmedabad have been most successful. The entire of the earthwork has been completed, and had the perma-

nent way and iron bridge materials been supplied at an early date, there would have been no difficulty in laying the rails from Surat to Baroda.

" 2. The rails are now laid from Surat to Keemchowkee, a distance of fifteen miles, from Panolee to Soorwady (near Broach), twelve miles, and from Broach northward, about five miles,— thirty-five miles in all.

" 3. The iron cylinder pile bridge, three spans of sixty feet each, has been erected over the Keem river, and the piles for four spans of sixty feet each have been screwed in at the Amra River, which is situated between Keem and Broach.

" 4. It is expected that the line from Surat to Broach will be completed about Christmas, 1858.

" 5. The completion of the line north of Broach must depend on the supply of permanent way materials, which are being now however rapidly received.

" 6. From Surat to Bombay experimental surveys have been made during the last season, and working surveys completed as far as the Veeturnee river, a distance of 117 miles from Surat. The construction of the first ten miles of this line from Surat was sanctioned in March, and the earthworks are now nearly completed. An additional ten miles was sanctioned in May, and ten miles more in June.

" 7. Possession of the land on the last twenty miles has not yet been obtained.

" 8. Sanction of Government was received in the present month for the remaining eighty-seven miles to the Veeturnee river, and arrangements are being made for vigorously prosecuting the works, and it is expected that the earthwork will be completed on the entire 117 miles during the working season of 1858-59.

" 9. Before finally deciding on the route this line shall take into Bombay, Government has ordered that detailed plans and estimates shall be prepared for the alternative lines from the Veeturnee river to Bombay via Bassein and Perseek Point, near Tanna."

ELECTRIC TELEGRAPH COMMUNICATION.

Your Committee are happy to be able to bear testi-

mony to the improved state of the telegraphic communications throughout India, but especially to that between Madras and Bombay.

Telegraphic communication with Calcutta and Madras was for many months interrupted, but the line from Bombay to Madras was re-opened to the public in January last, and that from Madras to Calcutta some months later.

Your Committee have obtained the leave of Government to resume the privilege conceded previously to the outbreak in Bengal, of interchanging with the Calcutta Chamber of Commerce telegrams of China commercial intelligence, and Government have in addition most liberally conceded the further privilege of interchanging with the Madras Chamber, messages conveying English news.

These messages are not exclusively retained for the benefit of the Members of the Chamber. On receipt, they are conspicuously posted at the telegraph office, and copies are furnished to the press by the telegraph Superintendent.

Your Committee have learned with satisfaction that telegraphic communication between the continent of India and Ceylon has just been completed, by the successful laying of a cable across the Gulf of Manaar.

OVERLAND MAIL COMMUNICATION.

At the close of 1857, important changes were made by the Postmaster General in London, with the view,

your Committee believe, of securing a regular weekly communication with Calcutta.

With this object, it was arranged that mails for India should be dispatched weekly from London, and forwarded from Suez, alternately to Bombay direct, and to Madras, Calcutta, and the Eastward, *via* Galle, and return mails should be independently dispatched from Bombay and Calcutta fortnightly, and so timed as to reach London weekly.

A weekly communication with Calcutta was thus hoped to be established, alternately by steamer direct, and by dawk *via* Bombay.

Under this arrangement, besides the indirect disadvantage of having only a fortnightly communication with England, whilst the more distant Presidencies enjoyed a regular weekly intercourse, Bombay was further prejudiced by the dates of receipt and despatch of its mails being at most inconvenient intervals, and also temporarily by having no direct steam communication with Southampton, but the latter disadvantage was speedily removed by the P. & O. Company placing extra steamers on the line between Southampton and Alexandria, in conjunction with the Bombay mails.

Your Committee took this important subject into immediate consideration, and on the 30th December, a Special General Meeting of the Chamber of Commerce was held, at which it was resolved that the inconvenience of the new arrangements should be represented to Government, and that it should be suggested, as an immediate and effectual remedy, that two steamers of the Indian Navy should be employed to run fortnightly

between Bombay and Aden in connection with the Bengal steamers, thus securing to Bombay the advantages of a direct weekly communication with Europe.

Your Committee accordingly addressed Government on the subject early in January, but it was not until May that in reply they were informed that their proposal had been supported and forwarded for approval to the Court of Directors. Since then nothing further on the subject has transpired.

Towards the close of last year, the Bengal Chamber of Commerce invited this Chamber to support it in a representation it had made to the Lords Commissioners of the Admiralty, suggesting the propriety and policy of arranging for the conveyance of the additional mails, which it was believed Her Majesty's Government intended to establish, with an Association entirely independent of the P. & O. Steam Navigation Company, who, it was submitted, had signally failed in performing the covenants undertaken by them in existing contracts.

Your Committee replied, that from information they possessed, they were led to believe that the changes in the mail arrangements then under contemplation would not afford an opportunity of introducing competition under the auspices of Her Majesty's Government and the East India Company, and therefore they did not deem it advisable to agitate the question at that time. They however recognised and appreciated the advantages likely to arise from competition, although in the opinion of your Committee, the mercantile community in Bombay had not had the cause to complain of the working

of the P. & O. Company which appeared to have been found on the other side of India. (See Appendix A.)

MASTER ATTENDANT'S DEPARTMENT AND PILOTAGE.

Complaints of the inefficiency or inadequacy of the Pilot establishment have not been less frequent than formerly, and your Committee, in the course of the enquiries which these complaints have given rise to, have been led to examine very carefully into the constitution of the Master Attendant's Department, of which the Pilot establishment forms a branch.

The result of these enquiries has been to convince your Committee of the necessity for the reconstruction of the Master Attendant's Department, and its complete separation from the Indian Navy.

They have accordingly addressed a letter to Government, urging several very important changes (see Appendix B), and they believe that if the arrangements they advocate be carried into effect, it will be easy to make such modifications of the Pilot establishment as may from time to time appear to be necessary.

BUOYING OF THE RIVER TAPTEE.

Suggestions were submitted to your Committee as to buoying the Channel of the River Taptee, and thus rendering its navigation more secure than at present.

Your Committee thought the suggestions valuable, and they forwarded them to the Commander-in-Chief of the Indian Navy, urging their adoption.

Commodore Wellesley's reply was unfavorable, but your Committee still adhere to their opinion that the measures proposed are valuable, and may be carried out at a very trifling cost.

Before moving further in the matter, however, they addressed the Commanders of the various coasting steamers, inviting an expression of opinion on the matter, but they regret to say they have not been favored as yet with any replies.

The correspondence on this subject is to be found in Appendix C.

COTTON CULTIVATION.

Returns of Cotton cultivation in the Southern division of the Presidency have been furnished to the Chamber for the years 1856-57 and 1857-58, and your Committee are glad to observe that in the latter year there were 11,992 acres under exotic, and 104,444 acres under indigenous Cotton in excess of the previous year. Returns from other divisions of the Presidency have not been received, your Committee having represented to Government that from past experience these returns were of comparatively little value to the Chamber, and that, as far as the Chamber was concerned, the authorities in the various districts might be relieved of their preparation.

The efforts of Government to introduce improved varieties of Cotton, appear to be continued with unabated vigour, and samples have been received from time to time from the various districts, upon which your Committee have reported.

Some very fair specimens of long-stapled Cotton grown in the Dharwar Collectorate from Egyptian seed were lately submitted, upon which your Committee reported that if such Cotton were produced in quantity it would command a very high price in this market.

In the course of their correspondence with Government respecting samples of Cotton submitted for report, your Committee took occasion to allude to the marked disfavour in which Indian saw-ginned Cotton is held in the home market, where it is seldom freely saleable in quantity, which led them to entertain a doubt as to the fitness of the saw-gin for cleaning short stapled Cotton.

They also addressed an enquiry to the Manchester Cotton Supply Association as to why saw-ginned Indian Cotton is so little esteemed at home.

In reply, the Executive Committee of the Manchester Cotton Supply Association state, "that they believe the principal cause to be the improper use of the saw-gin, that the Cotton, being of a soft nature, has been cut and broken by over-ginning, for on enquiry they learn that though the Cotton has been thoroughly cleaned from dirt, the fibre has been so injured that it has been impossible to card it without excessive loss. They are confirmed in this opinion by the evidence of some Indian Cotton which has been exhibited by them, properly saw-ginned. They fear that the evil of over-ginning by the saw-gin is one which it will be difficult to avoid, and from experiments which they have caused to be made, they believe that the Macarthy Gin will

be found to be well adapted for cleaning Indian Cotton, and at the same time be an implement by which it will be impossible for a careless workman to injure the staple and fibre by cutting, as is the case with over-ginning by the saw."

With the view of introducing the Macarthy Gin into India, the Committee of the Manchester Cotton Supply Association have determined to present ten of these gins to this Chamber, desiring that they may be placed in the hands of proper and intelligent persons, in order that their working capabilities may be fairly tested.

The Manchester Cotton Supply Association forwarded to Bombay per steamer *Malabar* five tons of superior American Cotton seed, which they requested the Chamber to assist in distributing to Native cultivators in the Districts.

Unfortunately, this seed did not reach Bombay until late in August, when the Cotton planting season is over in all the Districts of the Presidency excepting the Southern division, for which also the seed was late. Dr. Forbes, Superintendent of the Government Gin Factory at Dharwar, was immediately communicated with, and he informed your Committee that if some of the seed could be promptly forwarded it might reach in time.

A quantity was at once dispatched, but your Committee, from a communication they have received from Dr. Forbes, are led to fear that it did not reach in time to be available for this season's sowing.

The Horticultural Society received a quantity of the

seed, which your Committee understand has been sown in the neighbourhood of Kirkee.

A native merchant also took some casks of the seed to forward to the Bhownughur territory, where he hoped, by the aid of irrigation, he might obtain a crop from it.

A small quantity was furnished on application for transmission to the Neilgherrie Hills, where some experiments in Cotton growing, your Committee were informed, are in progress.

The remainder of the seed cannot be distributed for sowing this season, and as your Committee are well advised it will not germinate if kept till next season, they beg to recommend their successors to take measures to dispose of it at once for cattle feeding or otherwise.

The distribution of seed of doubtful quality, uncertain to germinate, would be unwise, and tend to defeat the very objects which those who sent out the seed had in view.

COTTON FRAUDS.

In March last, a copy of a Petition addressed by the principal Native Cotton-dealers in Bombay to the President and Members of the Legislative Council of India, against an Act then under consideration, entitled "A Bill for the better suppression of Frauds in the Cotton Trade in the Presidency of Bombay," was handed by the Petitioners to your Committee, whom they requested to express an opinion on the clauses in

the Act to which in their Petition they had objected. In reply, your Committee informed the petitioners that they considered the Act in question a good and necessary one, and saw no reason why it should not be extended to Bombay, as contemplated.

The East India and China Association forwarded to this Chamber a complaint they had received from a large spinner, of a quantity of pebbles, large stones, and bricks, having been found by him amongst some East Indian Cotton he had purchased, and they requested the Chamber, if possible, to adopt measures to remedy the evils complained of.

By far the most serious of these was that of fire occasioned by the pebbles coming in contact with the rapidly-moving machinery during the process of cleaning. Large stones were easily detected in opening the bales, but the smaller pebbles escaped notice, and passed into the machine along with the Cotton.

The seriousness of this evil could not be exaggerated, and was calculated to bring Bombay Cotton into disrepute.

Your Committee believed that, generally speaking, the presence of small stones, grit, and such like, amongst the Cotton, was accidental, either arising from carelessness at the time of packing, or from the coarseness of the wrapper, as in the case of Mangarole Cotton, in which the Cotton happened to be packed, admitting of small stones passing through the interstices into the loosely packed mass within.

Large stones and other bulky substances they believed were fraudulently introduced whilst the Cotton was in

transit to Bombay from the place of growth, to make up for loss in weight by pilfering.

They believed that proper care in opening out the original packages and shaking the Cotton at the time of packing in Bombay, would generally ensure the detection and removal of any foreign substances mixed with the Cotton. They accordingly addressed a Circular to Members of the Chamber, urging them to impress on their servants and native shippers the necessity for great care when packing Cotton, and more especially when packing Mangarole Cotton, amongst which small stones and sand not easily detected were frequently to be found.

The East India and China Association advised having forwarded a sample of the stones, &c., found in the Cotton, to aid the Chamber in its enquiries, but the sample has not up to this time been received. (See Appendix D.)

ADULTERATION OF OIL SEEDS.

The continued extensive adulteration of Oil Seeds being the subject of general complaint, your Committee addressed the Chambers of Commerce of Calcutta and Madras, to ascertain whether similar frauds were common at the ports, and what measures, if any, had been adopted by merchants for the prevention or discouragement of such practices.

The Committee of the Bengal Chamber of Commerce replied that the practice of adulterating Oil Seeds had never been the subject of representation

to their Chamber, and they did not believe it prevailed in Calcutta. It was customary, they said, for higher prices to be paid for the cleaner sorts of seeds, and they believed that no other remedy for the malpractices complained of in Bombay can be applied, than either the rejection of the adulterated goods, or reduction in the price on account of admixture and impurities.

In the Madras presidency, the practice of adultering seeds with a considerable admixture of sand had been common, until merchants on making their purchases stipulated that the seed should be winnowed clean before being weighed, and the expense attending this process should be borne by the seller.

A representation was made to your Committee in October last, respecting a proposal to purchase seeds for the future in a perfectly clean state only, and to do away with the candy measure in the purchase of Gingelly, Khorasance, and Niger Seeds, and Ground Nuts, adopting in its place the hundredweight ; and your Committee were requested to invite a meeting of the mercantile community, to discuss and finally agree to the mode of dealing in future in seeds.

As buyers of seeds appeared to be generally agreed that it was preferable to purchase by weight instead of by measure, it did not appear necessary to call a meeting to carry out so simple a change.

As to laying down a rule, as suggested, for the purchase of *clean seed only*, your Committee saw many practical difficulties in the way, and deemed it inexpedient to attempt to impose any restrictions on mer-

chants in their dealings in seeds, any more than in other articles. Purchasers of seeds might easily so frame their bargains, as, with the aid of existing laws, to protect themselves against fraud.

INTEMPERANCE AMONGST EUROPEAN SEAMEN.

A copy of a Memorial by the Lord Bishop and Clergy of this Island, respecting the prevalence of intemperance amongst the European seamen frequenting this port, was forwarded by Government to the Chamber for opinion and advice.

Your Committee, after minutely enquiring into the state of the laws regulating the sale of spirituous liquors in this Island, expressed their opinion that these laws, if stringently administered, were sufficient to suppress, so far as it is possible to do so, the evils pointed out by the memorialists.

They more particularly suggested that the number of licences should be diminished, that the hours for keeping open houses for the sale of liquor, both on Sundays and week-days, should be restricted, that the sale of liquor by wholesale and retail should be kept separate, and that to aid in checking the sale of adulterated liquors, to which many of the evils complained of can be referred, a commission should be appointed to examine and fix standards for all descriptions of liquor, and to examine from time to time samples of the liquors offered for sale in the island.

They further recommended an appointment analogous

to that of the Clerk of the Markets, the incumbent to be aided in his duties by a special body of Police.

Your Committee also addressed a circular letter to all Masters of vessels arriving at Bombay, requesting them to keep their crews on board ship on Sundays. (See Appendix E.)

THE PAYMENT OF ENGLISH FREIGHT IN BOMBAY.

Complaints of the unfairness of the Regulation in force since 1849 for the payment of Inward Sterling Freight, being common, your Committee were induced to address a circular to merchants generally, inviting an expression of their opinions on the subject.

An almost unanimous desire was declared in favor of a change to a fixed rate of exchange of two shillings per rupee, for the payment, in the absence of special agreement, of all sterling freight inward, and an agreement in accordance therewith was prepared by your Committee, and has been numerously signed. (See Appendix F.)

GENERAL COMMERCE OF BOMBAY.

Mr. Spooner's Annual Report upon this subject has been for some weeks before the public, and your Committee think it may not be out of place to notice a matter so important in connection with the commercial interests of this port as the great expansion of trade these returns reveal. In Imports, an excess appears for the year ending 30th April last, as com-

pared with the average of the previous five years, of Rs. 6,04,85,121, and in Exports of Rs. 4,67,41,515, the gross value of the former being Rs. 16,31,60,036, and of the latter Rs. 14,67,53,599. Contrasting these sums with corresponding returns for 1853-54, which may be found in Tables Nos. 3 and 4 of the Report referred to, it would appear that our external commerce has more than doubled on the Import branch during the five years, and that an increase of one-third has taken place in Exports.

With respect to Imports, it must be noted that about one-half of the above gross amount consists of specie (say Rs. 7,49,85,973), and that a sum beyond this of Rs. 1,01,02,779 is the value of military and naval stores, railway material, and machinery, imported during the year under review.

These items must be viewed as Imports of an exceptional character, contingent upon the duration of the war, and which may be greatly curtailed when the public works now in course of construction are completed. They should, therefore, it appears to your Committee, be considered separately when it is sought to arrive at correct conclusions as to the present position of our market for commodities which are usually referred to under the designation of merchandise. Proceeding upon this principle, and contrasting the value of Imports *exclusive* of treasure, railway material, &c. for 1857-58, with similar returns for 1853-54, it would appear that the actual increase of trade in this branch during the period referred to is above one and three quarter crores of rupees.

In Exports, the progress made has been very remarkable.

Returns show an increase of Rs. 4,41,01,608, contrasting those of 1857-58 with 1853-54, and excluding treasure from both amounts.

On examining Export details it appears that to Great Britain, the value of produce shipped is about two-thirds more than in 1853-54; that to China it has increased by one-third; and that during these years a trade with France and other countries on the continent of Europe has sprung up, which is already very valuable, and promises to prove of increasing importance.

With respect to the item *Treasure*, which occupies so important a position in these returns, it must be remarked that while the Import of the past year amounts to Rs. 7,49,85,973, the Export has been only Rupees 2,28,27,054, leaving a balance which may be roughly estimated as four-and-a-quarter millions sterling unaccounted for, otherwise than by the assumption that it has been absorbed in the currency, or invested in ornaments, towards which purpose, the natives of India so universally apply their acquisitions of the precious metals. In connection with this subject, it appears to your Committee worthy of note that a similar result seems to have followed importations of specie into Calcutta during the past year. Mr. Bonnaud, in his very valuable "Commercial Annual of the External Commerce of Bengal," states the import there to have been Rupees 7,80,70,887, against an export of Rs. 85,96,918, leaving a balance of about seven crores of rupees of

Imports beyond Exports in that presidency. Of the export of bullion from Bombay, nearly one crore was to Cutch, Guzerat, and Malabar, and not beyond the continent of India, so that in all, an amount in the precious metals somewhat exceeding thirteen millions sterling has been imported at the two presidencies, and retained in India.

The returns from the Reporter General's Office, which are admirably arranged, and to which we are indebted for much valuable information on the subjects now noticed, having doubtless been studied by most members of the Chamber, it is unnecessary to enter now at greater length into details. Your Committee would, however, wish, before concluding their Report, to record this Chamber's concurrence in the remark made by Mr. Spooner in paragraph 116 of the introduction to his Report, respecting the great inconvenience which arises both to merchants and the Customs' department from the limited space at present afforded for the landing and despatch of goods.

The vast increase which has taken place of late years, and which there seems every reason to expect will be still progressive, renders it of great importance that means should be devised for enlarging the Custom-house accommodation.

Your Committee have not moved in this, but believe they will have the concurrence of the mercantile body generally when they suggest that their successors should lose no time in bringing so important a matter before the notice of Government.

GRAVING DOCK ACCOMMODATION.

Great inconvenience having been occasioned by the refusal of the authorities to admit merchant vessels requiring repairs into the Government Graving Docks, even when they were unoccupied, your Committee were induced to address the Commander-in-Chief of the Indian Navy, requesting information as to whether the customary accommodation to the trade of the port hitherto afforded was in future to be denied, or in any degree restricted.

Commodore Wellesley in reply stated that the fact of the Docks being vacant was no proof that the workmen were disengaged, and that moreover the custom of performing private work in the Dockyard had been productive of so much evil, that he deemed it necessary to restrict the practice to cases only of positive necessity.

The rapid increase in the amount of shipping resorting to this port renders the necessity of a Graving Dock, under independent and liberal management, yearly more apparent, and your Committee trust that this want may not long remain unsupplied.

MISCELLANEOUS.

Bank of Bombay.—The Directors of the Bank of Bombay, in compliance with a request from your Committee, have agreed to the monthly publication in the *Government Gazette* of a statement of the position of the Bank.

Kooria Mooria Guano.—The Commander of

H. M. S. *Cordelia* having furnished your Committee with a sample of Kooria Mooria Guano, they submitted it to Dr. Giraud for analysis.

His report, which will be found in the Appendix G, was very unfavorable; the Guano in his opinion being almost worthless, and, as compared with ground bones, about 50 per cent. inferior.

MHYJEE FAIR.—Notwithstanding the disturbed state of Central India, and of the Bheel tribes in Khandeish, this Fair, according to Mr. Mansfield's report (see Appendix H), was well attended during the six weeks it lasted. "The supply of goods not being sufficient to meet the demand, business was more than usually brisk, and prices ranged higher than has been known for years." The total of business transactions amounted to more than thirty-three lacs of rupees, being seven lacs and a half less than that of the previous year's Fair.

REFERENCES TO THE CHAMBER.—A considerable number of references have been made to the Chamber during the year. On these the best attention of your Committee has been bestowed.

PRESENTATIONS.—The Committee has to tender its best thanks to the Government of Bombay and to numerous authorities in various parts of India, for books and other publications forwarded to them during the year just expired.

SECRETARYSHIP.—Mr. Mawson's health having failed him, he applied to your Committee in February

last for eighteen months' leave of absence, which was granted, subject to the approval of the next General Meeting, the acting appointment being meanwhile conferred on Mr. Crowe.

Mr. Crowe has recently tendered his resignation of the Acting Secretaryship, which will now have to be filled up.

ACCOUNTS.—The accounts, balanced to the 31st August last, exhibit the sum of Rupees 4,283-15-11 at credit of the Chamber.

The Meeting will now have to elect a Committee for the ensuing year.

Minute of Proceedings at the Annual General Meeting of the Chamber of Commerce of Bombay, held on Wednesday, the 29th September 1858.

PRESENT :

JOHN FLEMING, Esq., *Chairman*, in the Chair.

MEMBERS.

ROBERT RYRIE, Esq.	R. P. NIXON, Esq.
JAMES GRAHAM, Esq.	W. SIM, Esq.
A. GUMPERT, Esq.	J. T. CUVILLIER, Esq.
M. S. CAMPBELL, Esq.	A. F. WALLACE, Esq.
T. F. GRAY, Esq.	W. T. ROPER, Esq.
R. MCILWRAITH, Esq.	FIELDING SCOVELL, Esq.
R. HANNAY, Esq.	A. GRANT, Esq.
G. LORD, Esq.	E. HEYCOCK, Esq.

The Annual Report of the Committee having been read, it was moved by T. F. Gray, Esq., seconded by R. McIlwraith, Esq., and unanimously

RESOLVED,—That the Report now read be approved, and printed for general use, together with the documents therein referred to.

It was moved by M. S. Campbell, Esq., seconded by W. T. Roper, Esq., and unanimously

RESOLVED,—That the Members of the Committee retiring are entitled to, and do receive, the thanks of the Chamber, for their attention to its interests during the year of office now expired.

It was moved by J. Graham, Esq., seconded by A. Gumpert, Esq., and unanimously

RESOLVED,—That the Committee for the ensuing year shall be as follows, namely :—

ROBERT RYRIE, Esq., *Chairman.*
ARCHIBALD ROBERTSON, Esq., *Deputy Chairman.*
WALTER CASSELS, Esq.,
FIELDING SCOVELL, Esq., } *Members.*
ROBERT WALLACE, Esq.,

A letter from Messrs. Ritchie, Steuart, & Co., Treasurers, to the address of the Acting Secretary, was read. By this it appeared that a sum of Rupees 3,390 12as. 9ps. was at the Chamber's credit on the 31st July last, which credit was increased at this date to the sum of Rupees 4,283 15as. 11ps.

It was moved by James Graham, Esq., seconded by M. S. Campbell, Esq., and carried,—

That leave of absence having been granted by the late Committee to Mr. Mawson in February last, subject to the confirmation of a General Meeting of the Chamber, it be resolved that Mr. Mawson be written to, to ascertain whether it is his intention to return to Bombay, and that in that case only the leave of absence be confirmed. In the mean while the Committee shall appoint an Acting Secretary.

The following Firms were balloted for and unanimously elected Members of the Chamber, namely :—

Messrs. Leckie & Co., proposed by Robert Ryrie, Esq., and seconded by M. S. Campbell, Esq.

The Chartered Bank of India, Australia, and China,

proposed by R. McIlwraith, Esq., and seconded by James Graham, Esq.

Messrs. A. C. Brice & Co., proposed by A. Gumpert, Esq., and seconded by G. Lord, Esq.

Messrs. B. & A. Hormusjee, proposed by James Graham, Esq., and seconded by T. F. Gray, Esq.

Messrs. Dadabhoy Hormusjee Cama & Co., proposed by R. McIlwraith, Esq., and seconded by A. F. Wallace, Esq.

It was moved by R. Ryrie, Esq., seconded by M. S. Campbell, Esq., and unanimously

Resolved,—That for the future all General Meetings of the Chamber shall be advertised in the Newspapers.

It was moved by James Graham, Esq., and seconded by Robert Ryrie, Esq.,—

That a vote of thanks be returned to the Chairman for his conduct in the Chair. The resolution was unanimously passed, and the Meeting dissolved.

APPENDICES.

APPENDIX A.

OVERLAND MAIL COMMUNICATION.

No. 1 OF 1858.

To H. YOUNG, Esq.,

Chief Secretary to Government, General Department, Bombay.

SIR,—At a Special General Meeting of the Chamber of Commerce, held on Wednesday the 30th ultimo, for the purpose of considering the new Overland Mail arrangements, it was resolved that Government should be addressed with a representation of the inconveniences which those arrangements will entail on the public of Bombay, and of Western India generally, and that its aid should be asked in obviating them.

Under these new arrangements there will be no direct Southampton Mail to or from Bombay, and the Southampton packets for and from this port will be detained for at least a week in Egypt before these can be conveyed to their destination. As, besides many letters, the Southampton Mail exclusively carries out books, parcels, samples, treasure, &c., the public, general and commercial, will thus be subjected to very serious inconvenience.

Again, as the dates of despatch have been fixed, the Mails for Bombay will arrive here a day or two after the departure of the outward steamer, and thus ten or twelve days must elapse before the letters so brought can be answered, a delay which must cause much detriment and inconvenience, especially in regard to mercantile correspondence.

As a means of averting these evils, the Committee of the Chamber, under the resolution of the Special General Meeting, would respectfully suggest that two steamers of the Indian Navy should be employed to run between Bombay and Aden in connection with the Bengal steamers. This, it will be readily observed, would remove all cause of complaint. Our Southampton Mails

would be conveyed regularly and without detention; Bombay would be placed in direct weekly communication with England; and all letters received might be answered within a week of receipt.

As an additional advantage to be secured by the adoption of the plan proposed, the Committee would suggest that the object for the attainment of which the new arrangements are supposed to have been chiefly designed, viz. a frequent and rapid communication with Calcutta, would thereby be greatly promoted. With a steamer arriving here and departing hence weekly, the earliest intelligence would be received and the latest might be transmitted through Bombay, by means of the post and the electric telegraph. This would be the case even when the telegraphic line is extended to Point de Galle, inasmuch as the passage between Bombay and Aden is shorter by some hundreds of miles than that between Aden and Galle.

Under these circumstances, and as the arrangement now suggested would not only obviate great inconveniences, in which Government must largely share with the public, but would also promote the object which the home authorities are supposed to have had in view when they formed the new arrangements, the Committee trust that the Right Honorable the Governor in Council will take its proposal into favorable consideration.

I have the honor to be, &c.,

(Signed) JOHN MAWSON,

Secretary.

Bombay, Chamber of Commerce, 4th January 1858.

No. 35 OF 1858.

To H. YOUNG, Esq.,

Chief Secretary to Government, General Department, Bombay.

SIR,—I am directed by the Committee of the Chamber of Commerce to bring to your notice the letter No. 1 of 1858, dated the 4th January last, calling the attention of Government to the

Mail arrangements, and to beg that you will kindly favour the Chamber with an early reply to the suggestions contained in it.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 6th May 1858.

No. 1207 OF 1858.

GENERAL DEPARTMENT.

TO THE ACTING SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—With reference to your letter No. 35, of the 6th inst., I am directed by the Right Honorable the Governor in Council to state, for the information of the Committee of the Chamber of Commerce, that a representation of the inconveniences which the new Mail arrangements sanctioned by Her Majesty's Government (and complained of by the Chamber in their Secretary's letter, No. 1, dated 4th January 1858,) entail on the community throughout this Presidency and N. W. India, has been made by this Government to the Honorable Court of Directors, who have been begged to obviate them by the establishment of branch steamers from Aden in communication with the vessels conveying the Southampton and Marseilles Packets to Calcutta.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) W. HART,
Secretary to Government.

Bombay Castle, 18th May 1858.

APPENDIX B.

MASTER ATTENDANT'S DEPARTMENT AND PILOTAGE.

No. 102 OF 1858.

To H. YOUNG, Esq.,
Chief Secretary to Government, Bombay.

SIR,—Since the Committee of the Chamber of Commerce last communicated with Government relative to the necessity of improvement being made in the system of Pilotage in Bombay Harbour, the Act XXII. of 1855 for the Regulation of Ports and Port Dues has come into operation, and, under Act XXXI. of 1857, the levy of Port Dues on shipping commenced in January last.

Both these Acts have an important bearing upon any proposal for the improvement of the Harbour and Pilotage arrangements. The Committee adopt them as the basis of their suggestions, and while strongly impressed with the necessity which exists for the introduction of a system which will meet the increasing demands of the trade of Bombay, they desire, in the alterations which they now propose for the consideration of Government, to keep within the scope and intentions of the law which is now in operation.

The Act XXII. lays down a complete Code of Port Regulations. It appoints the Master Attendant to be Conservator of the Port, vests him with large powers, defines his duties, and places the Pilotage establishment under his control. It provides for the keeping of distinct accounts of the Port Fund, showing in detail the receipts and charges, and for their audit and publication annually; it provides also for payment of advances by Government, and of interest on the same, and orders that this fund is to be charged with all expenses, including the pay and allowances of all persons upon the Port establishments, cost of buoys, beacons, lights, or other works, maintained for the benefit of shipping, but excluding Pilotage receipts and expenses.

Looking at the important position assigned to the Master Attendant by the new law, his various and onerous duties, and large powers, and the necessity which exists for imposing on him a direct personal responsibility for their proper exercise, and for negligence or incompetence in his office, the Committee beg to submit that the first measure to be adopted is the reconstruction of the Master Attendant's establishment as a distinct department, and its complete separation from the Indian Navy, and Government Dockyard.

An examination of the present organisation of the Master Attendant's department will, the Committee conceive, show how necessary this is to make it efficient, and carry out the intentions of the Act. As at present constituted, it consists of—

1st.—The Master Attendant, who is always a Senior Officer of the Indian Navy, the appointment lying in that service. He is selected, the Committee believe, rather with respect to rank than any special knowledge or fitness for the office. He is transferred or removed at the pleasure of the Naval Commander-in-Chief. He has no direct responsibility to the public, as all questions regarding the port are not referred to him, but to the Naval Commander-in-Chief, and incompetence or neglect of duty would, at worst, only lead to his removal from the appointment, but would not affect his position in the Indian Navy. The present Master Attendant, Captain J. W. Young, is an able and much esteemed officer, but he is also Assistant Superintendent of the Indian Navy, an appointment which, the Committee are of opinion, is altogether incompatible with the due performance of his duties to the mercantile and shipping interest.

2nd.—Three Assistants, whose appointments lie in the patronage of the Naval Commander-in-Chief, and who have generally served in the Indian Navy.

3rd.—The Pilotage establishment.

4th.—The Dockyard Boatswain and Sail-maker.

The whole department is attached to the Dockyard, has Dockyard duties to perform, and is under the sole and irresponsible control of the Naval authorities.

It is easy to trace how the Master Attendant's department has fallen into this position, and as long as the expenses of the port were chargeable against the general revenue, and its functions were performed with tolerable efficiency, the mercantile community had no special interest in enquiring into the amount of its

expenses, or the nature of its constitution, but the new law has changed all this.

The whole expenses of the Master Attendant's department, lights, buoys, &c., now fall upon the shipping. It is respectfully submitted that the shipowners and merchants have a right to expect that no portion of a fund collected for these objects shall be applied to other purposes, or contribute towards the expenses of another and entirely distinct Government establishment. Whilst the Master Attendant's department is constituted as at present, it appears to the Committee that it will be difficult, if not impossible, to distinguish in the expenditure what should properly be chargeable to the Indian Navy, and what to the mercantile shipping. That no check can be kept over the expenditure and application of the fund, that the direct and sole responsibility of the Master Attendant, as contemplated by the law, cannot be enforced, and that the usefulness of his establishment will be seriously impaired. The Committee therefore submit,—

That Government, under Sec. VI., should appoint a Harbour Board or Commission, say of five persons—1st, The Collector or Commissioner of Customs, as under Sec. XLV. he is appointed to receive the port dues, and from his position is in daily communication with the merchants of Bombay. 2nd and 3rd, Two members possessing good practical knowledge of Marine matters, it appears to the Chamber should be chosen. 4th, Lloyd's Agent in Bombay. 5th, A member to be chosen as a representative of the mercantile community. The appointment of Master Attendant should either be thrown open to competition, or, if given to an officer of the Indian Navy, it should be on the distinct understanding that he will be responsible only to Government and the Harbour Commission, be under no other control, and be unable to hold any other appointment. When these preliminary measures are carried out, the Committee see little difficulty in placing this department on an efficient basis. The Commission, acting along with the Master Attendant, would determine what office staff and assistants were necessary, and from the ample provisions of the Act, it would be easy to compile a complete Code of Bye-laws and Regulations for the Port, alterations in which can be made from time to time, as they are found necessary.

It might be advisable that the Master Attendant should be Marine Magistrate, as he is at Madras, Point de Galle, and other ports, and when the new Mercantile Marine Act for India, now

before the Legislative Council, comes into operation, the Shipping Master's department might advantageously be incorporated with that of the Master Attendant. These arrangements, however, can stand over for future consideration.

LIGHTS.—As, under the new law, the expense of all lights, buoys, &c., falls upon the Port Fund, and as the Committee conclude that Government will charge it with the estimated value of the present light vessels, buoys, &c., and the cost of their maintenance, they consider it will be as well to ascertain, by at least one year's experience, what the income and expenses are likely to amount to, before suggesting any alteration in the present system.

PILOTAGE.—The Chamber observe that a separate account is to be kept of the receipts and expenses of the Pilotage establishment, and conclude that it will remain under the responsible control and management of the Master Attendant, an arrangement which will render necessary its complete severance from the Government Dockyard, and which will be the first step towards placing it on an efficient footing.

With every wish to see a system of free pilotage introduced, such as exists on the coast of England, and which would give a stimulus to individual exertion, the Committee see several difficulties in the way, and consider it will be better to continue for the present a fixed scale of pay, as under the existing system, but they would suggest that as vacancies occur they should be thrown open to public competition; that if the funds admit, the pay and allowance should be increased, and a sum set apart for a sick and superannuation fund. If this were done, the Committee believe that in the present depressed state of the shipping interests, many shipmasters, holding first class Board of Trade certificates, would be found among the applicants for employment. The Committee are inclined to conclude, from the opinions of parties competent to judge, that the present description of Pilot-boats is well adapted for use in this harbour during the fair weather monsoon, and that what is wanted is an increase in the number of men (actually doing duty as Pilots) and boats. Even this may not be necessary if a proper system of working is introduced, and encouragement given to diligence on the part of the Pilots, the men being kept to their own proper duties, and not being liable to be detached for service in any other department.

For the three months during which the S. W. moonson prevails, the Committee consider that it would be best to revert

to the old plan,—that is to have a Pilot Brig of about 200 tons, anchored well out, and that this vessel should beat out of the harbour every morning at daybreak, to lead in any ship making the port, or, if the weather permitted it, to place a Pilot on board, returning to the anchorage at night-fall. This Pilot vessel to be commanded by one of the Senior Pilots, with two or three Assistant Pilots, and a native crew, and to be paid off, stripped, and laid up in ordinary from the end of August, and throughout the N. E. monsoon. There are other details to which the Committee have not alluded, but they desire to have some experience of the working of the law, and to know the amount of the port and pilotage revenue and expenses before extending their suggestions. They trust, however, that the Government will see the necessity of severing the connection of the Master Attendant's department with the Indian Navy and Dockyard, as until this takes place the new law will remain a dead letter, and the commercial and shipping interests of this port will continue to suffer from its inefficiency.

I have the honor to be, Sir,
Your most obedient Servant,
(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 24th September 1858.

APPENDIX C.

BUOYING OF THE RIVER TAPTEE.

To the Secretary to the Chamber of Commerce, Bombay.

Dear Sir,—Having recently visited Surat with the view of observing and ascertaining the capabilities of the river Taptee for the passage of steamers, &c., upwards as far as that town, I was a good deal struck and surprised to find that the channel, an intricate one, and abounding in several places with shoals, some of a very dangerous character, was in no place buoyed off, nor any beacons or established marks set up, whereby vessels proceeding up and down the river might be guided in the proper channel.

This, in a river leading to a wealthy town, between which and the presidency of Western India there is a very large and daily increasing trade, I think calls for some efforts on the part of our mercantile community, if not on that of the local Government, for improvement, and I hasten therefore to draw the attention of the Chamber of Commerce to the matter, feeling assured that it needs only this to insure the proper remedies being applied in such manner as the Members may deem most suitable; and I would tender the following suggestions:—

1st, That the existing channel of the Taptee river, from the sea up to the town of Surat, be buoyed off in such a manner as to render it easily and safely navigable, and thus obviate the accidents that now so often occur from vessels grounding on the shoals, and the delays, damages, or losses that consequently ensue.

2nd, That, with the view of making the river navigable for larger vessels, and safer for such as now navigate it, a dredging machine be employed on the shoal parts of the channel, at the close of the rains, to deepen it at those parts.

With reference to the first suggestion, the most complete plan would be to lay down two kinds of buoys at convenient distances

the whole way up from the bar to the town of Surat, say of red and black colours—one colour to mark the port side of the channel, the other the starboard side, with occasional beacons on the edges of the banks, marked distinctly so as to show the depth of water at that particular point, with a rising or falling tide.

If the above arrangements be thought to involve too much expense, it would be sufficient to have a fairway buoy with a beacon on it at a convenient distance and bearing from the shoal marking the bar, on which a buoy should also be placed, a beacon to mark the point towards which to run from the last named shoal; a buoy on the shoal to be sounded on running over towards Domus, a beacon on the bank on Domus side, and one other buoy to mark the fair channel onwards; and beside these, three or four pairs of buoys more, with a beacon or two, would be needed to mark the channel at the shoal near Megdella village.

All the buoys used, excepting the fairway buoy, might be of very small size.

With respect to the dredging, I am of opinion that the operation would not involve much expense; for if the channel at the bar, and at the shoals up near the land by Vaux' Tomb, and near Megdella village, was cleared out and deepened once a year, just after the rains of the S. W. monsoon (during and just after which the mud deposits chiefly take place), I think it would continue clear, with an ample depth of water, and easily navigable for the rest of the season; so that, if a dredging machine could not be spared entirely for the work here named, one might be towed up each season for the occasion, and afterwards returned.

I would further suggest that, for the conveniences thus obtained, a small Tonnage Toll be levied on all boats and vessels entering the river, and this would, I think, to a considerable extent, if not wholly, meet the expenses of the proposed arrangements.

I remain, dear Sir,

Yours faithfully,

(Signed) W. H. STANLEY CRAWFORD,

Manager Bombay Steam Navigation Company.

Bombay, 12*th April* 1858.

No. 28 OF 1858.

To Commodore G. G. WELLESLEY, C.B., R.N.,
Commander-in-Chief of the Indian Navy, Bombay.

SIR,—I am directed by the Committee of the Chamber of Commerce to forward copy of a letter from Mr. Stanley Crawford, Manager of the Bombay Steam Navigation Company, urging the necessity of buoying the Channel of the Taptee. The Committee think the suggestions contained in that letter will be found well worthy of attention and support. The necessity for buoying the Channel of the Taptee has on more than one occasion been urged on the attention of the Chamber of Commerce, not only by Europeans, but by natives; and the measure is one which, in the opinion of the Chamber, would be of the greatest practical utility. In considering, however, the propriety of carrying out the suggestions made in the letter of Mr. Stanley Crawford, the Committee desire to dwell on the fact that the Taptee is a river subject to changes in its course from the violence of the stream during the monsoon. Consequently no plan would be effective which should not secure the survey and rebuoying of the Channel every year.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 20th April 1858.

No. 1466 OF 1858.

TO THE CHAMBER OF COMMERCE.

GENTLEMEN,—With reference to the letter of your Secretary, No. 28, of 20th instant, forwarding copy of one from Mr. Stanley Crawford, Manager of the Bombay Steam Navigation Company, on the subject of buoying the several shoals in the river Taptee, below Surat, I beg to inform you that I do not concur with that gentleman in considering it even feasible that the channels could be sufficiently marked so as to render the river easily and safely

navigable, without such a large number and constant shifting of buoys and beacons as it would probably not be in the power of the Government to undertake, and which would certainly entail an expense very far beyond what the object to be attained would justify.

2. All the buoys and beacons must be removed previous to the setting in of the monsoon, and, as observed by your Secretary, it would be necessary to resurvey the river every year, to do which with the care requisite to ensure safe navigation, would occupy at least several weeks. Nor does it seem necessary, for, after all, a river pilot would always be able to navigate it with the practical experience which is easily attainable by watching the course of a river at all seasons, without any marks beyond the ordinary features of the country. There can be no objection to placing one or more fairway buoys, showing the channel over the bar, and either a buoy or beacon to direct the course to be steered to enter fairly within the river, but thence upwards it is better to trust to local pilots for navigation.

3. Such is the usual custom in all navigable rivers; nor, so far as I am aware, is the practice of buoying the various banks ever adopted.

4. With regard to the use of a dredging machine in order to deepen the channels, its utility will of course depend upon the nature of the deposit which it is intended to remove; and, moreover, the most effectual if not the only approved plan for deepening a stream, is by narrowing the channel in width by artificial means, by which the depth is increased proportionably.

I have the honor to be, Gentlemen,

Your most obedient servant,

(Signed) GEORGE G. WELLESLEY,
Commander-in-Chief I. N.

Office of the Commander-in-Chief, I .N.,
Bombay, 26th April 1858.

APPENDIX D.

COTTON FRAUDS.

TO THE PRESIDENT OF THE BOMBAY CHAMBER OF COMMERCE.

SIR,—The attention of the Committee of this Association has been directed to a complaint made by a large spinner of East India Cotton, of pebbles being found amongst the cotton, and also of large stones and broken bricks being found in the bales.

The subjoined copy of the letter of complaint so fully explains the circumstances under which the pebbles and stones were detected, and the imminent danger from fire to which the factories are exposed from neglect or fraud in allowing such things to be packed amongst the cotton, it seems unnecessary for us to do more than to place the case before your Chamber, as we feel assured that you will at once see the expediency, so far as in your power, of adopting measures to prevent a recurrence of the evil complained of.

It is our intention to forward the pebbles, &c., which accompanied the complaint, by an early conveyance to Bombay, with a view to assist you in any investigation as to the probable district from which the cotton was received. Our impression is, that it was grown in Mangarole; the pebbles may probably rise from carelessness, after the cotton is passed through the churka, but the large stones and pieces of brick must, we think, have got into the cotton at the presses in Bombay, or if they were in before, they might, we think, by a little care have been taken out there.

I am, Sir,

Your obedient servant,

(Signed) PETER EWART,

Chairman of the Meeting.

East India and China Association,
Liverpool, 14th March 1858.

(Copy.)

Messrs. JOHN WRIGBY & SONS,
Cotton Brokers, Liverpool.

GENTLEMEN,—I forward by Lancashire and Yorkshire Railway Company, for your inspection and information,

50 lbs. of stones picked out of Surat cotton bought at various times and from various people. These have been taken out by the men whilst opening the bales for mixing the cotton.

115 lbs. of small flint stones, pebbles, &c., picked off cotton *whilst going through the machines.*

The 50 lbs. have been collected during the last six working days, and the 115 lbs. during the last two days—say 115 lbs. out of 20,000 lbs. of Surat cotton.

The loss in weight of cotton is a serious item, but this is little compared with the extreme danger we run from fire.

The matter is so very serious, and the consequences so probable, that I cannot refrain from bringing it before you, and request that a strong representation may be made in the proper quarter of the extreme risk which every user of Surat cotton is liable to, and the evil is certainly increasing.

We have had several providential escapes from very very serious fire, caused by nothing else but the stones coming in contact with the quick revolving portions of the machines for cleaning cotton.

Too strong a representation you cannot make; this must be our apology for troubling you.

Gentlemen,
I am, yours obediently,
(Signed) J. B. CROMPTON,
For J. C. K.

Pristolee New Mills, Tamworth, Manchester, 3rd March 1858.

TO THE PRESIDENT CHAMBER OF COMMERCE, BOMBAY.

SIR,—In reference to the letter of the Chairman of this Association of the 14th ultimo, in regard to stones found in East

India Cotton, I have now to advise that the stones, &c. were shipped for Bombay by the *Sebastopol*, and that the receipt has been forwarded to Messrs. Ewart, Latham, & Co., who will hand it over to you on application.

I am also desired to add that since the occurrence brought to your notice took place, other stones have been found in Compta Cotton.

I am, Sir,
Very respectfully,
(Signed) T. M. MYERS,
Secretary.

East India and China Association,
Liverpool, 16th April 1858.

No. 58 OF 1858.

To T. M. MYERS, Esq.,
Secretary to the East India and China Association,
Liverpool.

SIR,—By direction of the Committee of the Bombay Chamber of Commerce, I beg to acknowledge the receipt of a letter from Mr. Ewart, Chairman of the East India and China Association, dated 14th March, and another from yourself, dated 16th April, the former directing the attention of this Chamber to the fact that a quantity of stones and broken bricks had been discovered by a manufacturer amongst some Bombay cotton, and the latter advising that specimens of the stones, &c., had been forwarded per *Sebastopol* to Messrs. Ewart, Latham, & Co., to aid this Chamber in any investigations which it might be deemed requisite to make.

As some time must elapse before the specimens in question can reach Bombay, I am in the mean while desired to assure you that the Committee will be happy to do all in their power to check the frauds and carelessness which Mr. Ewart so forcibly points out.

Large stones, pieces of bricks, lumps of mud, and other bulky substances are not unfrequently discovered amongst the cotton,

when the up-country packages are opened at the presses in Bombay. They have been fraudulently introduced by the boatmen, cartmen, or bullock-drivers, who have brought the cotton from the place of growth, to make up for lost weight occasioned by pilfering, and the Committee are of opinion that they are seldom, almost never, introduced in Bombay.

It is difficult to get at the perpetrators of the fraud. The dealer who has sold or is shipping the cotton is the victim; he can rarely identify the cotton as having come by a particular boat, or, having succeeded so far, it is almost impossible for him to prove that the fraud was not committed before the cotton came into the boatman's charge.

Sufficient care at the time of repacking in Bombay, in breaking up and thoroughly shaking the mass of cotton as taken out of the up-country package, would ensure the detection of any bulky substances, such as large stones and bricks, and the Committee will endeavour, so far as their influence extends, to impress on cotton shippers the necessity of care in packing.

Small grit and pebbles are frequently discovered amongst Mangarole cotton, and in the experience of the Committee but seldom in other descriptions.

In the Mangarole districts cotton is usually very loosely packed in large bags of a very coarse kind of cotton cloth,—a mere network, in fact, through the interstices of which small stones and coarse sand easily pass, working their way, as the bags are rolled about, into the loosely packed mass within.

Unless very great care be observed at the presses in Bombay, the small grit thus gathered up passes unnoticed.

The only effectual remedy which occurs to the Committee is the introduction of a different description of bagging in the Mangarole districts, and it will address the dealers on the subject.

On the arrival of the specimens of stones per *Sebastopol*, you will be informed whether their appearance warrants any modification of the views expressed above.

I am, Sir,

Your obedient servant,

(Signed) J. A. CROWE,

Acting Secretary.

Bombay, Chamber of Commerce, 4th June 1858.

APPENDIX E.

INTEMPERANCE AMONGST EUROPEAN SEAMEN.

No. 420 of 1858.

JUDICIAL DEPARTMENT.

TO THE ACTING SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—In transmitting the accompanying copy of a Memorial from the Lord Bishop and certain of the Clergy ministering on the Island of Bombay, relative to the intemperance which prevails amongst the European seamen frequenting the port, and other classes of the Christian inhabitants of Bombay, I am directed by the Right Honorable the Governor in Council to invite the attention of the Chamber of Commerce to this subject, and to request that the Committee will be so good as to favor Government with any suggestions they would wish to offer in regard to the measures which should be adopted for diminishing the evils pointed out by the Memorialists.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) H. L. ANDERSON,
Secretary to Government.

Bombay Castle, 23rd February 1858.

TO THE RIGHT HONORABLE THE GOVERNOR IN COUNCIL OF BOMBAY,

The Humble Petition of the Right Revd. the Lord Bishop of Bombay, and of the Clergy ministering in the Island,

SHEWETH,—That the sin of drunkenness prevails amongst the European seamen frequenting the port, and certain classes of the

Christian inhabitants of the island, to the corruption of youth, the hindrance of the holy Word of God, and the perdition of souls.

2. That on the Lord's Day, more especially in the afternoon, when the largest number of seamen are on shore, drunken men are seen lying helpless in the streets, driving in public conveyances, shouting their songs and jests as they pass, interrupting Christian instruction and public worship in some of our churches, and by these acts bringing disgrace upon our national character, and causing the Holy name by which we are called to be blasphemed.

3. That the records, to which your Petitioners have been courteously allowed access, of the Coroner for the county, and of the European General Hospital, bear startling evidence of the extent to which drunkenness prevails in the classes to which reference is made. From the Coroner's Office your Petitioners learn that during the last thirteen (13) months fifty inquests were held upon bodies of Christians, thirty-eight (38) of whom were Europeans, and twelve (12) natives, that *five* of the thirty-eight Europeans came to an untimely or violent death by *excessive drinking*, and one of the twelve natives by the same sin; that in fourteen out of the remaining number of cases, death is traceable to drunkenness as the *indirect cause*. From which it follows that of the deaths of Europeans investigated by the Coroner from 1st day of January 1857 to 31st day of January 1858, 13.15 per cent, and of Native Christians 8.33 per cent., were assigned by juries *directly to drunkenness*, and that of the total number of deaths 40 per cent. are *attributable to drunkenness*. From the European General Hospital your petitioners learn that during the year ending 31st day of December 1857, 180 cases of "Ebrietas" and "Delirium Tremens" were admitted, of which seven proved fatal, and that the per-centage of admissions of cases of drunkenness, ebrietas, and delirium tremens, to those from all other causes during the same period, was 15.52.

4. That there is reason to believe this vice of drunkenness is much encouraged by the facilities for the sale of liquor which the licensed shops possess. These shops are of four descriptions, viz. 1, the hotel; 2, the tavern; 3, the liquor shop; 4, the toddy shop; which are intended to meet the desires of all classes of the community for spirituous liquors. By the existing regulations which apply to these shops, the keepers of them are prohibited from selling spirituous liquor to soldiers and policemen, but to sailors, who are notoriously more unruly on shore than landsmen, spi-

rituous liquor may be sold without measure every day at these shops, and the seller suffer no rebuke or punishment. These regulations offer no interruption to the sale of spirituous liquor throughout the year. Hotels are licensed to sell at all hours of the day and night, and taverns and liquor shops are only closed from eleven at night until sunrise the following morning; nor is there, as your Petitioners are informed, any sufficient distinction between wholesale and retail dealing, and in consequence, before the closing hour, seamen and others buy at the taverns and liquor shops as much spirituous liquor as they will, and carry it away, too often to some house of ill fame, in which to continue their drunkenness.

Seeing, then, that as well by the recorded testimony of the Coroner and the medical officers of the European General Hospital, as the witness of every passenger in our streets, the sin of drunkenness prevails, and is notorious for the misery and ruin it entails upon families and individuals; seeing also that the police regulations for granting licenses under Act XVIII. of 1840 permit the sale of spirituous liquors to seamen on shore, but not to soldiers and policemen, thereby encouraging drunkenness; seeing that there is no hour of the day or night when spirituous liquor may not be lawfully sold to seamen and other Christians, not being soldiers or policemen, in the hotels; seeing that there is no day in the year when spirituous liquor may not be sold from sunrise to 11 o'clock at night; seeing also that there is no prohibition against the sale of spirituous liquors by the keepers of taverns and liquor shops, to be carried away and drunk on other premises, and no sufficient definition in these Regulations of wholesale dealing in spirituous liquors, thereby greatly encouraging seamen and others to continue their drunkenness;

Your Petitioners therefore pray that your Lordship in Council would be pleased to cause inquiry to be made into the truth of the facts which your Petitioners allege, and in your wisdom make and publish such regulations as will abate the drunkenness which now prevails; and in particular, your Petitioners humbly submit for the consideration of your Honorable Council—

1. That no tavern, liquor shop, or toddy shop, be open on the Lord's Day, and that no hotel be open for the sale of spirituous liquors during the hours of Divine Service on the Lord's Day.

2. That spirituous liquors sold in taverns, liquor shops, and toddy shops, be drank only on the premises.

3. That it be unlawful for the same person to hold a wholesale and retail license, and that the premises for wholesale dealing be entirely separate and distinct from those for retail dealing; that the sale of not less than 12 bottles at one time be deemed wholesale; that no liquor be drank upon the premises; and that these shops be closed on the whole of the Lord's Day, and at 9 o'clock P. M. on every other night.

And your Petitioners as in duty bound will ever pray.

In affixing my name to the above Petition, I beg to state that, when ministering lately on board of one of the merchants' ships in the harbour, I was addressed by a large company of Captains, who represented to me in the strongest terms their regret at the extent to which intemperance prevailed among their men, attributing it in a great degree to the want of such restrictions as this petition prays for, and soliciting me to do whatever was in my power for the obtaining of some interference from the authorities on their behalf.

(Signed) J. Bombay; W. K. Fletcher, M.A., Senior Chaplain; C. W. Isenberg, Missionary Minister C.M.S.; J. D. Gibson, M.A., Chaplain of Byculla; J. P. Robertson, Missionary; A. H. Frost, M.A., Missionary, C.M.S.; Daji Pandoorung, Native Minister, C.M.S.; R. K. Cousens, B.A., Officiating Minister, Trinity Chapel; T. Watson, M.A., Acting Chaplain of Colaba; W. Dinan, Mariners' Chaplain; F. J. Spring, Garrison Chaplain, February 16th 1858; and W. H. Cummins, B.A., Chaplain of the Harbour.

(True Copy.)

(Signed) H. L. ANDERSON,
Secretary to Government.

Bombay, 16*th February* 1858.

No. 27 OF 1858.

To H. L. ANDERSON, Esq.,

Secretary to Government in the Judicial Department, Bombay.

SIR,—I am directed by the Committee of the Chamber of Commerce to acknowledge the receipt of your letter, No. 420, of

the 23rd February 1858, accompanying copy of a Memorial from the Lord Bishop and certain of the Clergy ministering on the Island of Bombay, relative to the intemperance which prevails amongst the European seamen frequenting the port, and other classes of the Christian inhabitants of Bombay, and requesting the Committee to favor Government with any suggestions in regard to the measures which should be adopted to check the evils complained of by the Memorialists.

The very great increase in the shipping of this port within the last few years doubtless causes the spectacle of drunken seamen to be more frequent in our streets than formerly; but the Committee are also of opinion that the increase of the number of liquor houses of all classes, and a great laxity in enforcing the terms of the licences granted, have in no small measure contributed to the spread of the evil so truly represented by the Memorialists.

The Committee believe that existing laws, if stringently enforced, would go far to meet the exigencies of the case; but it is a matter of common notoriety that keepers of public houses daily infringe the terms of their licenses with almost perfect impunity.

A diminution in the number of licensed houses, which may be easily accomplished by the non-renewal of current licenses as they expire, the granting of no new licenses, unless a necessity be clearly shown to exist in the locality indicated for which the application is made, and a more stern administration of the existing laws (forfeiture being adopted as the usual punishment for the infringement of license, with fine superadded where the case be very flagrant), would, in the opinion of the Committee, tend to check the evils complained of.

The Committee is glad to observe that the Magistrate has already ordered the closing of drinking shops during the hours of Divine Service on Sundays; but they would go further, and suggest that the sale of liquors on Sundays, whether at taverns, arrack, or toddy shops, be permitted *only* between sunrise and 10 A. M., and from 1-30 P. M. to 4 P. M. On week-days also, the Committee are of opinion that the convenience of the public would not be prejudiced by the closing of all liquor shops at sunset, instead of at 9 P. M. as at present.

There would thus be less inducement to sailors to remain on shore after dark. Special exception, however, must be made in

favour of hotels, the licenses to which should permit the sale of liquor to lodgers only. To carry out these suggestions it appears to the Committee that no additional powers are required by the Magistrate.

It is very generally believed that much of the mortality arising from excessive drunkenness in the island is the result of the deleterious nature of the liquors now sold in the lower class of public houses; the Committee would therefore recommend that Clause 4 of the licenses be stringently enforced, and with this view would suggest the appointment of a Medical Commission to fix standards of quality and strength of all descriptions of liquors, and to test from time to time samples of liquor offered for sale throughout the island.

The Commission should also determine what liquors are injurious to health, and the sale of such should be strictly prohibited. The sale of adulterated or unwholesome liquor should be punished by the highest penalty the law permits.

The Committee cordially approve of the suggestion of the Memorialists that the places licensed for wholesale and retail dealing should be kept separate, and that wholesale shops be closed entirely on Sunday.

It does not appear to the Committee practicable to forbid entirely the retail sale of liquors to be carried away from the premises. The number of shops where such retail is permitted ought however to be much restricted.

To prevent breaches of the law by keepers of hotels, taverns, arrack and toddy shops, a more complete surveillance on the part of the Police is urgently wanted; and the Committee would suggest that a certain number of the Police should be specially detached for the duty, and, to prevent collusion with those whom they are intended to watch, they should be frequently changed.

An appointment corresponding to "Clerk of the Markets" would be necessary in checking the sale of deleterious liquors, the Clerk submitting to the Commission already indicated the samples of suspected liquors, and otherwise exercising a general superintendence of drinking shops, having the Police detached for this service under his orders.

With a view to prevent as far as possible the present open desecration of the Sabbath, the Committee will urge upon masters of ships the desirability of keeping their crews on board on Sundays.

It is as regards European sailors that the evils of the present

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state of matters are brought most painfully before the public, but it does not appear to the Chamber that the sale of intoxicating liquors to them could consistently be forbidden while it is permitted to all other classes of civilians. They can only hope that the suggestions which they have offered may, if approved by Government, be of some service in checking the indulgence of this most degrading vice. No new law appears to be wanted. All that is necessary is a more active surveillance on the part of the Police, and a more stringent enforcement of the existing laws by the Magistrates.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 20th April 1858.

(CIRCULAR.)

To the Commander of the Ship ———.

SIR,—I am directed by the Committee of the Chamber of Commerce to draw your attention to the great evil of drunkenness now so prevalent amongst the Sailors frequenting this port. Great disgrace and reproach is brought upon our national character, in the eyes of the natives especially, by such scenes of rioting and drunkenness as are too often witnessed in our streets, more particularly on the Sabbath-day. The Committee of the Chamber of Commerce beg for your cordial assistance in checking this crying evil, and with that view would respectfully suggest to you the advisability of positively refusing all leave of absence from your ship on the Sunday, particularly as those who are inclined to attend Divine Service on that day have the opportunity of doing so now without coming to the shore.

I have the honor to be, Sir,
Your obedient servant,
(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 22nd June 1858.

APPENDIX F.

SHIP FREIGHT INWARDS.

With reference to the payment of Inward Freight at Bombay when stated in Sterling, we the undersigned Merchants do hereby agree, that for the future, all such Freight falling due under Bills of Lading dated on or after the 1st November next, shall (in the absence of special agreement, *or when stated to be payable at the current rate of exchange*) be paid and received by us at the rate of Two Shillings per Rupee.

It is understood that the Agreement dated February 1849 shall continue to regulate the payment of all Freights falling due under Bills of Lading dated previous to 31st October next.

Forbes & Co.; Remington & Co.; Leckie & Co.; Leggatt, McKenzie, & Co.; Peel, Cassels, & Co.; Finlay, Scott, & Co.; Lawrence & Co.; A. H. Huschke & Co.; Dirom, Hunter, & Co.; Stevens Brothers; G. Perry & Co.; W. Langlois, A. LeRoy, & Co.; Robert Strong & Co.; Edward Bates & Co.; Grey & Co.; Vinay, Fils, & Co.; Heycock & Co.; William McHaffie & Co.; Hastings Hicks, Sim, & Co.; Volkart Brothers; Rennie, Scovell, & Co.; Lyon Brothers & Co.; W. Nicol & Co.; Martin, Young, & Co.; Ritchie, Steuart, & Co.; Macindoe, Rogers, & Co.; Cardwell, Parsons, & Co.; W. & A. Graham & Co.; Robert Frith & Co.; Wallace & Co.; McCulloch & Co.; Ewart, Latham, & Co.; Campbell, Mitchell, & Co.; W. C. Sillars & Co.; Killick, Nixon, & Co.; George Pollexfen & Co.; T. R. Richmond.

Bombay, August 1858.

APPENDIX G.

KOORIA MOORIA ISLANDS—GUANO.

No. 122 OF 1857.

To H. J. GIRAUD, Esq., M.D.,
Chemical Analyser to Government, Bombay.

SIR,—By direction of the Committee of the Chamber of Commerce, I forward to you a sample of Guano brought from the Kooria Mooria Islands by H. M. S. *Cordelia*, and have at the same time to convey the Committee's request that you will favour the Chamber with an analysis of the Guano and a report as to its quality.

I have the honor to be, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay, Chamber of Commerce, 8th December 1857.

To JOHN MAWSON, Esq.,
Secretary to the Chamber of Commerce.

SIR,—I have the honor to acknowledge the receipt of your letter, No. 122 of 1857, with accompanying sample of Guano, contained in one unsealed bottle, labelled "Specimen of Guano as shipped from Jeblea, Kooria Mooria Bay."

This specimen is a deep fawn-coloured powder, free from odour. Chemical analysis shows the following to be its composition in 100 parts :—

Water	2.20
Organic matter	18.15
Insoluble earthy salts and sand	36.20
Phosphates	38.55
Alkaline salts	4.90
	100.00
Total Ammonia	0.336

3. The value of Guano depends first of all upon the quantity of ammonia it is capable of yielding; and secondly, upon its proportion of phosphates. In this sample, the ammonia exists as a mere trace, not even imparting the slightest ammoniacal odour. It is indeed more defective in this essential ingredient than is the specimens from the Kooria Mooria Islands in the Government Central Museum. The proportion of phosphates is a very fair average, and is larger than in the specimen in the Central Museum.

It must be borne in mind that samples of Guano from the same locality may differ much in composition, as they are taken from the surface or from considerable depths. The surface Guano is always more deficient in organic matters yielding ammonia; and this is especially the case in a locality subjected to a high temperature and much rain.

If all the Guano of the Kooria Mooria Islands is like this sample brought by H. M. S. *Cordelia*, it is very worthless,—inferior to ground bones in the proportion of about 50 per cent.

In the accompanying table I have represented its composition in comparison with that of the specimen from the Government Central Museum, and of some of the most valuable well-known Guanos.

	Kooria Mooria by H. M. S. *Cordelia*.	Kooria Mooria in Central Museum.	Anagamas.	Peruvian.	Ichaboe.	Patagonian.
Water	2.20	6.88	13.61	13.73	24.21	24.36
Organic Matter ...	18.15	38.75	57 90	53.16	39.30	18.86
Insoluble Earthy Salts and Sand	36.20	30.02	2.02	1.66	2.30	12.71
Phosphates	38.55	18.35	19.50	23.48	30.00	41.37
Alkaline Salts ...	4.90	6.00	6.97	7.97	4.19	2.70
	100.00	100.00	100.00	100.00	100.00	100.00
Total Ammonia ...	0.836	6 50	20.53	17.00	8.50	2.66

I have the honor to be, Sir,
Your most obedient servant,
(Signed) H. GIRAUD, M.D.,
Chemical Analyser to Government.

Grant College, Bombay, December 19th, 1857.

APPENDIX H.

MHYJEE FAIR.

No. 1361 OF 1858.

JUDICIAL DEPARTMENT.

TO THE ACTING SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—I am directed by the Right Hon'ble the Governor in Council to transmit to you, for the information of the Chamber of Commerce, the accompanying copies of a letter and its enclosure from the Magistrate of Kandeish, together with my reply, relative to the last annual fair held at Mhyjee, in that Province.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) H. L. ANDERSON,
Secretary to Government.

Bombay Castle, 26th May 1858.

From SAMUEL MANSFIELD, Esq.,
Collector and Magistrate of Kandeish,

To H. L. ANDERSON, Esq.,
Secretary to Government, Judicial Department, Bombay.

SIR,—I have the honor to forward, for the information of Government, copy of a Report by my 2nd Assistant, Mr. Weeding, who superintended the Mhyjee Fair this year in consequence of no Police Officer being available.

2. Expecting that operations in the Satpooras would commence earlier than they did, I notified previous to the commencement of the Fair that its duration would be limited to one month, to enable the Troops and Police employed to keep the peace to take a part in the operations. Subsequently I was enabled to prolong the period for another fortnight, much to the satisfaction of the traders and merchants.

3. The disturbed state of Central India, and the insurrectionary movements of different bodies of Bheels on the north and north-west frontier of Kandeish, necessarily affected the Fair, but not to so great a degree as might have been expected; and from the supply of goods not being sufficient to meet the demand, business was more brisk, and prices ranged higher than have been known for years. This does not agree exactly with the account given by Mr. Weeding, but I have heard it from several merchants, who all unite in describing the amount of the business transacted as quite exceptional.

4. His Lordship in Council will be gratified to hear that not only was there little or no crime during the Fair, but none of the merchants attending it were molested, either in going or coming. This is a satisfactory proof of the efficiency of the arrangements made by Mr. Weeding, who bears willing testimony to the assistance he received from Lieutenant Bell, Lieutenant Hall, and the Subedar Major of the Bheel Corps. Lieutenant Bell relieved Mr. Weeding of charge of the Fair during the last week.

5. Regarding the want of accommodation for the troops, mentioned in the 19th para., I will make further enquiries, and address you hereafter.

6. The subject alluded to in Mr. Weeding's 24th para. will be brought to the notice of Captain Birch, whose duty it is to superintend the Fair.

I have the honor to be, &c.,

(Signed) S. MANSFIELD,

Collector and Magistrate.

Kandeish, Collector and Magistrate's Office,
Dhoolia, 13th May 1858.

No. 15 OF 1857.

From T. WEEDING, Esq.,
2nd Assistant Collector,

To S. MANSFIELD, Esq.,
Collector of Kandeish.

SIR,—I have the honor to submit to you the following Report on the Mhyjee Fair, held at the commencement of the present year.

2. For the preservation of order in and about the Fair, the following troops were employed:—

100 men of the 4th Regiment N. I. (Rifles); 200 men of the Kandeish Bheel Corps; besides about 45 Police Peons, 140 Chowkedars, and 6 Police Sowars, at the disposal of the Officer superintending the Fair.

3. The distribution of this force was made by Captain Birch upon the same plan as in former years, the Chowkedars being, as usual, selected from the recipients of Tuggai advances; but some thirty-four of them having failed to present themselves during the early part of the Fair, their services were dispensed with altogether. The few Police Sowars proved very useful in visiting the Chowkedars, at unexpected hours of the night, to see that they were vigilant, and the roads free from all obstruction.

4. The Fair nominally commenced on the 30th of December 1857; business transactions began on the 3rd of January, and lasted till the 20th of February, although the Fair virtually closed on the 15th of February; on the withdrawal of the troops, a few traders only remained on till the 20th of February.

5. The inauguration of the Fair by processions of huge decorated carts and music was unattended with hook swinging, or any other revolting practices; and although the attendance of spectators was, in consequence, smaller than on previous occasions, I am not aware that there exists the least wish to revive a practice equally torturing to the victims, and disgusting to the better class of beholders.

6. I regret it becomes my duty, in speaking of the amount of business transactions at the Fair, to record less extensive results

than on previous years. But I believe, and the data adduced will, I think, fully bear out the opinion, that the falling-off is entirely owing to temporary and incidental causes, not likely to affect the condition of the Fair hereafter.

7. These causes appear to be the following:—

I. A feeling of uncertainty and insecurity prevailing at the time the Fair commenced, by which some traders were induced to remain away altogether, others to delay their departure until they saw how matters stood, and others to leave behind some of their more valuable articles of merchandise.

II. The disturbances in the upper provinces of India, by which some articles of trade, such as Benares sugar, Jubbulpoor cloths, &c., were kept out of the market altogether, or only retailed from Bombay at enormous prices.

III. The necessity imposed, by the demand for the troops elsewhere, of curtailing the duration of the Fair.

8. The first of these causes acted alike on buyers and sellers, and neither felt inclined to undertake the journey to the Fair when it was uncertain whether the venders would find purchasers or the purchasers venders of the articles required for the year's supply. This difficulty will, of course, disappear when the surrounding countries shall be free from causes of apprehension, as is now pretty well the case. The second cause, although temporary in nature, may take longer in removal, inasmuch as the supply from distant towns will depend, not only on the communication with them being open, but also on the manufactures being sufficiently abundant, and uninterrupted by the disturbing events till now taking place there. In further explanation of the third cause, it must be observed that it was first announced that the troops could only be spared for one month to guard the Fair, and that fifteen days were subsequently added, when it was found that more important matters would admit of the extension.

9. To the above causes could be added many minor ones, such as the general dearness of nearly all articles of produce or manufacture, which must have limited the transactions of the poorer classes; the backwardness of the harvests, and a partial failure in the cotton, and early crops, by which a considerable check must have been imposed on the exchanges and investments

of the cultivating population. But all these causes may reasonably be expected to adjust themselves, or disappear in the course of events as now ordered.

10. Should it however be deemed advisable to give the Fair any extraneous aid, it will, I think, be amply afforded by a notice in those towns from which produce has hitherto generally been brought, stating what Police arrangements have been made for the security of traders, and that the Fair will be allowed to continue the full time requisite (say two months) for all business transactions.

11. It might further be considered desirable to quote a few of the prices that ruled, with a view of inducing traders to bring their goods; but I cannot say I deem this course indispensable, nor consequently advisable, for I believe the Fair, resting on mutual advantage to buyers and sellers, has sufficient vitality in itself, and any fostering aid, if attended with disappointments, would react with double force in producing a belief that the advantages of the Fair were fictitious, and the delusion supported by authority. Indeed this subject would hardly merit consideration, were it not that the occasion under report presents the first check the Fair has received in a course of progressive prosperity, and that with many traders the fact of their not having visited the Fair this year, would be deemed by them sufficient cause for not visiting it next.

Names of Articles.	In 1857 per Maund.	1858.	Names of Articles.	In 1857 per Maund.	1858.
	Rs.	*Rs.*		*Rs.*	*Rs.*
Benares Sugar	17	27	Raisins	6	12
Sugar-candy	18	25	Salamissree	30	40
Saltpetre	9	16	Assafœtida	40	60
Dates	2	3	Rice	16	24
Indigo	50	70	Salt	12	14
Camphor	40	50	Oored	7	10
Honey	5	21	Tillee	14	17
Sowagee (Borax)	30	40			

12. In the list of goods of all descriptions will be found a list of all articles brought to the Fair for sale, while a similar list contains all that remained unsold at the conclusion of the Fair, which exhibits cloth goods, and nothing else, and is to be accounted for by the general absence of the up-country purchasers of that article. Other produce appears all to have been sold, with the exception of quantities too small for entry. Traders under-rating both the duration of the Fair and the demand for their goods, brought supplies that proved inadequate; while purchasers, coming generally from no great distance, and having less risk on the journey, appeared in numbers, and with wants beyond the means of supply.

13. The total of business transactions during the Fair amounted to Rupees thirty-three lacs, twenty thousand seven hundred and forty-two and four annas (33,20,742-4-0), being less than the previous year by seven lacs, fifty-four thousand one hundred and sixty-four and eleven annas (Rs. 7,54,164-11-0). The value of goods remaining unsold at the end of the Fair was, for the year under report, Rs. 16,675-0-0, being less by Rs. 44,908-0-0 than that of the previous year.

14. The state of the cotton market was most unfavorable. Besides the causes alluded to in para. 7 of this Report, and an indifferently good crop, there was, just before the Fair commenced, a sudden fall in the price of cotton to nearly half its previous value. Many Bombay purchasers had, in consequence, incurred great losses by purchasing the crops as they stood in the fields; and the caution and uncertainty resulting from this, served to depress all cotton dealings throughout the Fair. Among other detrimental causes may be mentioned the withdrawal from cotton speculations in Kandeish of the only European firm which not only purchased extensively at the Fair, but materially influenced the market by its example. The cotton sales for the year under report, as compared with the previous year, are as follows:—

A. D. 1857.....Rs. 5,85,660-12-0	Difference in favor of 1857.
A. D. 1858..... „ 1,89,528-0-0	Rs. 3,96,132-12-0

That the dealers were anxious to purchase, could they have done so with certainty of advantage, was evinced by the readiness with which they made use of the Electric Telegraph to Malligaum on the arrival of each English mail. Indeed, the amount quoted above was nearly all purchased in one day, owing to a message

declaring a slight fractional rise in the English market, but subsequent advices offered no further encouragement, and the market remained dull to the end of the Fair.

15. The condition of the grain market was much more favorable, presenting results even superior to those of the previous year. The sale of linseed amounted to Rs. 1,69,292-4-0 in excess of the sales of the former year, from which it would seem that the impulse given to the export of this article by the last Russian war, has not ceased to operate.

The difference in the amount of all grains sold is shown as follows:—

A. D. 1857.....Rs.	81,188-7-0	Difference in favor of 1858.
A. D. 1858..... ,,	2,18,998-0-0	Rs. 1,37,804-9-0

This result is to be attributed to the magnificent rubbee crops, the best that have been known for several years; although the cause which favored them, viz. the backwardness of the rainy season, was equally detrimental to the khareef crops. But the early crops being used more for private consumption, and the rubbee for sale, the partial loss in the former did not influence materially the market results.

16. The banking and hoondy transactions, which may be taken to some extent as the index of the public feeling of security at the Fair, presents a decrease on the previous year to only the extent of Rupees 9,272.

The figures being for 1857...Rs.	1,750,275	Difference in favor of 1857.
1858... ,,	1,741,003	9,272-0-0

An amount which the difference of 15 days in the duration of the Fair seems itself to account for.

17. The current events of the Fair during the time it was under my charge, and subsequently under that of Lieutenant Bell, were happily of that undisturbed and orderly nature most to be desired, because most in accordance with the occasion, and calling for little observation; but I must not omit to mention that in maintaining this desirable condition of the Fair, Lieutenant Hall, Commanding Detachment of 4th Rifles, and Lieutenant Davies, of the same regiment, rendered cordial and efficient aid.

The conduct of the Detachment of the Kandeish Bheel Corps, under Subedar Major Vinkatram, was, as on all previous occasions, most exemplary. The Mhalkurry of Bornaryadoo, Shreeput, was constant and zealous in the discharge of his duties,

and was, from previous experience in the management of the Fair, well acquainted with all details.

I received petitions from a few leading traders, requesting that their few armed servants might be allowed to bring their arms into the Fair, but this request I did not accede to, inasmuch as it was contrary to custom, and uncalled for; and besides, dividing responsibility with the Police might have led to jealousy and quarrels.

The liquor vender petitioned for a remission of his license fee, on the plea that the Fair was not to be held so long as anticipated at the time he purchased the license. A remission of half the amount was granted under your sanction, but the Fair having subsequently been continued for 15 days, I recommended a corresponding alteration in the amount of remission, but the question has not yet been finally settled.

18. I am happy to state the Fair was entirely exempt from epidemics and sickness of any kind. This result, although mainly attributable to the general healthiness of the season, was doubtless in part also owing to the care bestowed in keeping the streets watered, and free from the refuse that would otherwise only too quickly accumulate.

19. But while writing on the subject of health, I beg to call attention to the little that has been done for the comfort of the troops in charge of the Fair, compared with the consideration shown to the traders whom they come to protect. Sometimes the Fair does not commence till about the 22nd of January, and, lasting for two months, extends well into the hot weather, and yet there is neither tree, hospital, or bungalow for the use and protection of the Detachment stationed at the Fair. To officers sent on duty at short notice, without time to procure good tentage, and to any falling sick, the inconvenience must be felt considerably. In confirmation of this opinion, I send copy of a letter written by Captain Scott in 1857, not the less applicable because not intended for this purpose.

20. An easy though distant remedy for this would be the planting of some trees, under the supervision of the Patell of the neighbouring village of Chinchkera, or more speedily by the erection of a few substantial huts and a small bungalow.

The traders would, I was told, willingly contribute to the above objects, in consideration of the advantages and security they derive from the presence of the troops.

21. The following are the receipts and disbursements of the Fair :—

		Rs.	a.	p.
1.	Last year's balance	62	15	3
2.	Sales of Stalls of absent owners	230	9	0
3.	Rent of Government Stalls	10	0	0
4.	Stall Tax, at 3 annas per hath frontage	1,229	4	0
5.	Duty paid by Venders of poisonous substances	39	0	0
6.	Ditto ditto Ganja	35	0	0
7.	Ditto ditto Opium	35	0	0
8.	Opium Sold by Government	80	14	0
9.	Postage Receipts	85	10	6
10.	Sale of Postage Stamps	50	0	0
11.	Liquor Venders' License Fee	307	8	0
12.	Sale of Old Guard Huts	0	4	9
13.	Fines, &c	14	14	7
	Total, Rs.	2,181	0	1

Sums of balance credited to the Fair.

		Rs.	a.	p.
1.	Stall Tax	1,229	4	0
2.	Sale of Stalls of absent owners	230	9	0
3.	Rent of Government Stalls	10	0	0
4.	Sale of Guard Sheds after the Fair	0	4	9
5.	Last year's balance	62	15	3
	Total, Rs.	1,533	1	0

Disbursements.

		Rs.	a.	p.
1.	Pay of Chowkedars	1,069	10	8
2.	Repairs to Kutcherry	15	1	9
3.	Ditto of Roads leading to the Fair	69	12	6
4.	Making and repairing Guard Sheds	13	5	1
5.	Removing the Weigh-bridge, erected for 1857	47	13	6
6.	Repairs of ditto for 1858	11	8	0
7.	Pay of Carcoons for keeping Returns of Goods brought to the Fair	108	6	4
8.	Stationery	13	9	6
		5	14	1
9.	Crier and Potdar	7	15	8
	Total, Rs.	1,363	1	2

	Rs.	a.	p.
Receipts credited to the Fair	1,533	1	0
Disbursements	1,363	1	2
Balance, Rs.	169	15	10

The following table represents results as compared with those of A. D. 1857 :—

Year.	Gross Receipts.	Difference.	Receipts credited to the Fair.	Difference.
	Rs. a. p.	*Rs. a. p.*	*Rs. a. p.*	*Rs. a. p.*
1857	3,277 1 9	1,036 1 8	1,901 2 1	386 1 1
1858	2,181 0 1	.....	1,533 1 0	.....

Year.	Disbursements.	Receipts credited to the Fair.	Difference.	Difference of Balance in favour of 1858.
	Rs. a. p.	*Rs. a. p.*	*Rs. o. p.*	*Rs. a. p.*
1857	1,838 2 10	1,901 2 1	62 15 8	107 0 7
1858	1,368 1 2	1,533 1 0	169 15 10	.....

That the balance of receipts over expenditure is greater for the year 1858, is owing partly to the expenditure having been smaller from the shorter duration of the Fair in this year, and from the number of Chokedars employed having been less, as also from a Resolution of Government, No. 1887 of 1857, to credit to the Fair the proceeds of the sale of absent proprietors' stalls, and the rent of Government stalls,—sums which had previously been credited to Government.

23. The bridge across the bed of the Garna river was re-erected entirely from the material used for the same purpose on the previous year, and although it was then anticipated that entirely new timber would be required for the third, *i. e.* next year, it appears to me that a great deal of it will serve efficiently again. Indeed, it stands to reason, that the timber which has been used in the more important parts of the construction, will be of use in places of secondary importance. But this question would perhaps be more satisfactorily disposed of by Mr. Brenham, under whose careful and able superintendence the bridge has twice been constructed.

The expense of reconstructing the bridge for the present

year does not appear in the foregoing statement of disbursements, inasmuch as the cost (Rupees 31) was defrayed from the balance of Rupees 148-13-5 remaining from the amount sanctioned for the original construction of the bridge in 1857, and of which there still, therefore, remains the sum of Rupees 17-13-5.

This, with the balance exhibited in favour of the Fair for the present year, making a total of Rs. 187-13-3, will, I am humbly of opinion, be sufficient for the removal of the present bridge, and its reconstruction in 1859. The resolution of butting the timber does not appear to have been carried out last year. I will only add that, owing to the greater depth of water in the Garna this year, the efficiency and utility of the bridge were more fully tested and approved than even on the first occasion of its construction.

24. I cannot quite agree in the expediency of the expenditure (in 1857 Rs. 102-11-0, and in 1858 Rs. 69-12-6) on the roads in the neighbourhood of the Fair. These repairs are carried out under carcoons in a very unworkmanlike style, and consist generally in levelling mounds and hillocks on the road, whether immediately in the cart track or not. A passer-by observing these repairs, a few years since, seriously surmised that some travellers must have been hunting for the mun ant. The best proof that the roads are not impassable is that they are in actual use for the traffic of the district up to the time the Fair commences. Two of the chief roads are also repaired under the general yearly road repairs; besides, it seems but a small matter that carts which have come fifty or one hundred miles to the Fair, should have the last few kos prepared with extra care. The money could, I think, be spent on works of more immediate or permanent utility, such as levelling and metalling the approaches on either side of the bridge, which at present are very steep; or on the objects contemplated in para. 20 of this Report. The few exceptionary instances of obstruction in the roads that might occur, might, agreeably to existing usage, be remedied through the Patell of the neighbouring village.

25. I have great satisfaction in recording the small amount of crime that took place during the Fair, notwithstanding that the time was one at which the evil-disposed element of society might be expected to have been peculiarly on the alert. The following

statement shows the number of detected and undetected crimes (all petty thefts) that occurred :—

No. of Thefts.	In which offenders were captured.	Amount stolen.	Amount recovered.	Unrecovered.
		Rs. a. p.	*Rs. a. p.*	*Rs. a. p.*
8	6	42 8 0	25 14 5	16 10 6

26. In concluding this Report, I will venture to hope that although the trading operations have been smaller than in previous years, owing to incidental disturbing influences, the general result of the Fair will not be pronounced altogether unsatisfactory. It was no small matter that the Fair was free, during the whole time, from anything like panic, considering the events that were passing at no great distance, and the still more portentous rumours to which they generally gave rise ; that there was a decrease in crime at a time when an increase might naturally have been expected ; that none of the traders suffered loss or molestation, coming from or returning to their homes ; that the demands of purchasers were well in advance of supply, notwithstanding the high prices at which most articles were sold. These results must tend to dispel all apprehension of danger and doubts of profit from the minds of the Mhyjee traders, and, with every prospect of peace and plenty in the land before next Fair, there can be little doubt of its rivalling, if not excelling, all that have gone before it.

I have the honor to be, &c.,

(Signed) T. WEEDING,
2nd Assistant Collector.

(True Copy.)

(Signed) S. MANSFIELD,
Collector.

APPENDIX.

List of Goods of all descriptions, with their quantities and value, as correctly as they could possibly be ascertained, at the Mhyjee Fair, between the 25th December 1857 and 19th February 1858.

Description	Quantity.		Value.		
	Maunds.	Seers.	*Rs.*	*a.*	*p.*
Azmoda (Sison Amni)	4	20	30	8	0
Amsool (Garcinia Gambogia)	156	...	472	0	0
Ambehhullud (Turmeric, Coloured, Zedocary)	7	20	28	0	0
Assubgole (Medicine)	21	...	42	0	0
Atteeveekh (Root of a Jungle Tree) ...	1	...	10	0	0
Augur (a Spicy Drug)	...	10	1	0	0
Auhalew (a particular Seed)	1	20	3	0	0
Ambaree (Hibicus Cannubinus)	236	30	545	0	0
Anjeer (Figs)	1	...	5	0	0
Al (Morinda Citrifolia)	256	...	2,123	8	0
Askund (Physalis Flexussa)	27	...	87	12	0
Akulkura (Anthimis Pyrttorun)	5	30	695	0	0
Kaisur (Saffron)	...	6	480	0	0
Kapoor (Camphor)	28	8¾	1,172	0	0
Kootkee (Hellebore)	1	20	15	0	0
Kaleejeera (Purpul Fleabane Seed) ...	9	20	25	0	0
Keermanee Wave (a Seed of the Dill kind)...	1	20	4	0	0
Koonkoo (a Red Powder)	220	20	2,274	8	0
Kajoo (Chashew Nuts)	38	...	334	0	0
Kumburbund (a sort of Medicine) ...	9	...	24	0	0
Koyphul (Kilicrum Bark)	4	20	32	0	0
Karreekhar (a sort of Medicine)	...	4½	5	0	0
Kath (Catechu)	552	20	4,378	0	0
Kismis (Plums)	9	...	135	0	0
Kustooree (Musk)	Tolas	9	108	0	0
Kowrees (small Shells)	144	...	527	0	0
Koosoomb (Dried Flowers, Safflower) ...	2,736	30	18,495	8	0
Karreecherayet (Gentiana Cherayta) ...	3	10	59	0	0
Kala Bole (Black Aloes)	8	10	58	0	0
Kuppeela (Styrax or Benzoin)	10	...	170	0	0
Kummulkaree (Seed of the Lotus) ...	2	...	10	0	0
Kharreek (Dried Dates)...	6,419	30	21,944	0	0
Khurree Sakur (Sugar Candy)	168	10	3,719	0	0
Khujoor (Dates)	955	20	2,573	0	0
Khurree, Pandree (white Earth for white-wash, &c.)	744	...	127	0	0
Khobra (Cocoanut, out of the Shell) ...	4,215	20	30,504	0	0
Khoopeulla (a kind of Medicine)... ...	1	...	10	0	0
Gairoo (Red Chalk or Ochre)	107	...	311	0	0
Gool (Molasses)	3,743	20	16,638	0	0
Goolabfool (Dried Roses)	1	...	15	0	0
Googool (B'dellium)	351	...	442	8	0
Gond (Gum)	12	30	127	0	0
Carried forward, Rs.			1,08,759	4	0

Description.	Quantity.		Value.		
	Maunds.	Seers.	*Rs.*	*a.*	*p.*
Brought over, Rs.	.....		1,08,759	4	0
Goolal (Red Powder)	374	...	3,398	0	0
Goolee (Indigo)	358	10	22,030	0	0
Gokhroo (a Fruit of Tribulus Langnious) ...	4	...	18	0	0
Gorumbee (Kernel of the Bilawa Nut) ...	3	20	16	0	0
Charollee (Seed of the Chirongia Sapida) ...	63	20	386	0	0
Chundrus (Gum Amine)	4	...	150	0	0
Chundun (Sandal-wood)	33	5	151	0	0
Jeerai (Cummin Seed)	294	...	5,482	8	0
Joyputtree (Nutmeg Shell)	8	8	574	0	0
Jallum Gotai (a Medicinal Seed)	1	...	20	0	0
Joyphul (Nutmeg)	5	5	567	0	0
Jowlee Hullud (Sort of Turmeric) ...	336	...	2,211	0	0
Dig (Gum)	501	30	1,958	0	0
Deekamalee (a strong smelling Resin, the produce of Gardinia Gumnifera)	96	...	349	0	0
Tumalputree (a Leaf used in cookery) ...	103	20	391	0	0
Toop (Ghee)	3,901	20	56,862	8	0
Tumbakhoo (Tobacco)	227	10	775	0	0
Toortee (Alum)	1,324	...	4,617	0	0
Dalcheenee (Cinnamon)	44	20	1,406	0	0
Dhumasa (a Medicinal Drug)	1	20	1	0	0
Dhunai (Coriander Seed)	132	20	211	4	0
Dhowtee (a Medicinal Drug)	3	...	3	0	0
Nakaisur (Cassia Buds)	50	10	266	0	0
Nowsagur (Sal Ammoniac)	8	30	175	8	0
Naggur Motee (a Jungle Root)	1	...	0	8	0
Nubaila	1	...	15	0	0
Narrul (Cocoanut)	5,31,000	...	14,872	0	0
Puttung (Sapanwood)	74	20	314	8	0
Papurkhar (Carbonate of Soda)	1,184	80	2,388	0	0
Pimpla Mool (the root of Pepper Dechottomum)	32	...	1,322	0	0
Issfurruck (Medicine)	3	...	30	0	0
Ood (Incense)	40	20	1,148	0	0
Owla Gundhuk (Sulphur)	25	20	33	0	0
Pakhanbhade (a Saline Powder)	31	20	64	0	0
Pimplee (Long Pepper)	43	6	790	0	0
Puntoo	1	20	15	0	0
Pechuk (Gold and Silver Filing)	58	30	1,127	0	0
Petulpan (Brass in very thin Sheets) ...	386	20	1,159	8	0
Peevully Mattee (Yellow Earth)	8	...	9	0	0
Phuttackrai (Fire Crackers, Boxes) ...	No. 1984		1,664	0	0
Phuttur Phool (a medicinal exfoliation from Stones, Wood, &c.)	9	20	58	0	0
Buchnag (Poison Root)	15	...	30	0	0
Baphlee (Gum Arabic)	25	...	46	0	0
Bangurkhar (a kind of Saline substance) ...	12	...	108	0	0
Carried forward, Rs.			2,35,371	8	0

Description.	Quantity.		Value.		
	Maunds.	Seers	*Rs.*	*a.*	*p.*
Brought over, Rs.	.....		2,35,371	8	0
Budam (Almonds)	321	30	3,933	0	0
Balheerda (Chibulee Myrabolam)	14	10	29	0	0
Boond (Coffee)	10	30	134	0	0
Bedana (Quince Seed)	...	20	15	0	0
Bol (Gum Myrrh)	1	20	8	0	0
Beebacha Phool (Marking Nuts)	884	20	274	0	0
Beroza (Olibanum, a sort of Drug) ...	1	20	5	0	0
Burree Shope (a Seed used in Medicine) ...	193	...	882	8	0
Bhuimoong (Ground Nuts)	448	30	699	0	0
Bheelawa (Marking Nuts)	23	...	34	0	0
Mhojputtree (Bark of a Tree)	...	20	15	0	0
Meerai (Black Pepper)	778	10	7,250	0	0
Morechoot (Blue Vitriol)	1	30	91	0	0
Munooka (Dried Grapes)	85	20	661	8	0
Moordarsing (Sugar of Lead)	1	20	83	0	0
Mohoophool (Mowra Blossom)	454	...	549	4	0
Mydalukree (a sort of Drug)	6	...	18	0	0
Mooglaee Bedana (Quince Seed)	...	20	11	0	0
Moyphul (Alleppo Galls)	6	30	223	0	0
Men (Wax)	2	20	67	8	0
Mekia (Dried Fruit of a Creeper Plant) ...	4	20	25	0	0
Mehendee (Leaves of the Mendhee Bush, Lous-ania Inermis)	1	20	3	0	0
Revecheenee (Rhubarb)	...	30	12	0	0
Roomamuothee (the Gum of Mastic) ...	...	2	6	0	0
Ral (Resin)	60	20	370	0	0
Ruskapoor (Corrosive Sublimate)	1	20	229	0	0
Lalbole (Red Aloes)	10	...	92	0	0
Lakh (Sealing Wax)	1,082	10	10,404	8	0
Lassun (Garlic)	8	...	28	0	0
Lodh (a Dye)	23	0	138	0	0
Lowunga (Cloves)	324	10	5,357	0	0
Valedorni (Cardamums)	7	30	871	0	0
Valedana (Cardamums)	51	2½	2,290	0	0
Voy Koomb (Medicine Fruit)	4	20	9	0	0
Wala (Kuskus Root)	...	6	14	0	0
Vava (Seed of the Dill kind, Bishop's Weed) ...	80	...	115	0	0
Vaikhund (Calamus Aromaticus)	...	5	15	0	0
Vowslochun (a sort of white substance) ...	1	...	6	0	0
Varding (a Medicinal Seed)	1	20	4	0	0
Sailees (Glue)	30	...	68	0	0
Saidalone (Rock Salt)	44	...	178	0	0
Shahjeera (a variety of Cummin Seed) ...	16	...	262	0	0
Saindoor (Red Lead)	231	...	2,863	0	0
Sakur (Sugar)	1,450	20	25,395	0	0
Sunchul (Black Salt)	37	...	187	0	0
Soorma (Antimony)	...	20	10	0	0
Carried forward, Rs.			2,99,255	12	0

Description.	Quantity.		Value.		
	Maunds.	Seers.	*Rs.*	*a*	*p.*
Brought over, Rs.	.....		2,99,255	12	0
Sallum Missree (Salep, country)	10	3	293	0	0
Sonamookhee (Senna Leaves)	66	...	313	0	0
Senor Tag (Hemp)	203	...	402	8	0
Sung Jeerey (a kind of Mineral)	55	...	250	0	0
Suffade Mooslee (a Medicinal Root) ...	1	...	10	0	0
Sootly (Twine)	42	20	179	0	0
Sujjeekhar (Country Alkali)	273	20	880	0	0
Swaghee (Borax)	15	23	476	0	0
Seekakaee (the Pod of a Creeper Plant, Mimosa Abstergens)	6	...	24	0	0
Sooparee (Betel-nut)	5,264	...	37,993	8	0
Sora (Saltpetre)	48	...	768	0	0
Saboo (Soap)	15	...	90	0	0
Soont (Dry Ginger)	171	20	1,632	0	0
Seetulcheenee (a Medicinal Seed)	1	20	30	0	0
Singarai (the fruit of an Aquatic Plant) ...	230	20	1,193	8	0
Hing (Assafœtida)	599	30	3,008	0	0
Hullud (Turmeric)	692	10	3,611	0	0
Heerdai (the produce of a jungle tree used in colouring)	154	20	397	8	0
Hurtal (a Yellow Orpiment)	19	...	520	0	0
Hingool (Vermilion)	Bundles	152	545	0	0
Heeracussee (Green Vitriol or Sulphate of Iron)	6	...	221	0	0
Hoormusjee (a sort of Red Ochre or Earth)...	8	...	24	0	0
Total of Groceries, Drugs, &c. ...	.....		3,52,116	12	0
			Rs.	*a.*	*p.*
Pearls			26,925	0	0
Coral			3,500	0	0
Total of Jewellery...			30,425	0	0
Gold			1,22,800	0	0
Gold Ornaments			1,402	0	0
Silver ditto			700	0	0
Silver			19,775	0	0
Total of Gold and Silver...			1,44,677	0	0
Copper Coins			5,718	0	0
Bardana, or Bags for holding Cotton			17,562	0	0
Cotton, Cleaned			1,89,528	0	0
Banking business			17,41,003	0	0
1. Cloths made in Kandeish, consisting of all articles forming the apparel of male and female natives ...			78,014	8	0
2. Cloths made at Yeolah and Byzapoor, in the Deccan ...			42,650	0	0
Carried forward, Rs.			1,20,664	8	0

		Rs.	a.	p.
	Brought over, Rs.	1,20,664	8	0
3.	Cloths made at Nuggur	4,500	0	0
4.	Ditto at Sholapoor	19,625	0	0
5.	Cloths manufactured at Booranpoor, consisting of materials of superior texture, worked with gold, such as Turbans, Shawls, Saries, &c.	52,696	0	0
6.	Cloths from Surat and Ahmedabad, resembling those of Booranpoor	84,025	0	0
7.	Cloths from Nagpoor, Oomrawuttee, Akote, and other places in Berar, composed of articles of native dress, Carpets, &c.	1,06,239	0	0
8.	Cloths, Europe, of all sorts	1,89,525	0	0
9.	Cotton Twist	13,089	0	0
10.	Fancy native Head-dress	285	0	0
	Total of Cloths of all kinds ...	5,40,648	8	0
	Brass Vessels	10,358	0	0
	Copper Vessels	12,313	0	0
	Bell Metal Vessels	1,087	0	0
	Cast Metal Vessels	243	0	0
	Iron	140	8	0
	Iron Bars and Rods, English Steel	1,252	0	0
	Zinc	1,167	0	0
	A kind of Zinc	75	0	0
	Cast Metal	396	0	0
	Iron	1,865	8	0
	Do. Surat	10,267	0	0
	Tin	1,832	0	0
	Total of Metals...	40,996	0	0
	Rice	950	0	0
	Jewaree	834	12	0
	Wheat	818	0	0
	Bajree	154	4	0
	Gram	1,531	8	0
	Ooreed	2,121	12	0
	Moogh	23	8	0
	Dal	137	0	0
	Moormoora	199	0	0
	Watana	107	4	0
	Dallia	511	0	0
	Khuskus	11	0	0
	Methia	4	8	0
	Tooree	15	8	0
	Teel	484	0	0
	Pohai	8	0	0
	Ambaries	77	0	0
	Bhuggur	5	0	0
	Chowlia...	4	8	0
	Dal Tooreechee	864	4	0
	Carried forward, Rs.	8,861	12	0

	Rs.	a.	p.
Brought over, Rs.	8,861	12	0
Linseed	2,05,623	0	0
Salt	2,464	0	0
Rajgheera	25	0	0
Dal, Mussoorachee	5	0	0
Do. Oordachee	188	4	0
Flour, Wheat	1,804	0	0
Ditto, Jewaree	22	0	0
Total of Eatables, &c. ...	2,18,998	0	0
Bullocks	6,700	0	0
Buffaloes	140	0	0
Horses	75	0	0
Cows	19	0	0
Male Buffaloes	5	0	0
Goats and Sheep	237	0	0
Total of Cattle ...	7,176	0	0
Silk	5,592	0	0
Johoree Work	2,914	0	0
Oil, smelling	848	0	0
Ink	2	0	0
Silk Work	232	0	0
Gold Lace...	557	0	0
Bangles	12,457	0	0
Printed Books	1,500	0	0
Papers	700	8	0
Jingur Work	10	0	0
Sweetmeats	2,526	0	0
Ganja	717	0	0
Snuff	1,505	0	0
Copper Pot-maker's Work	211	0	0
Tailor's Work	108	0	0
Liquor Contractor	400	0	0
Iron Smith's Work	100	0	0
Tapes	260	0	0
Boodhlas	178	0	0
Playthings for Children	7	0	0
Cotton Seeds	458	12	0
Firewood	117	4	0
Kurbee	829	8	0
Silver Lace	856	0	0
Dufree	82	0	0
Carts	5,689	0	0
Gunny-pauts	131	8	0
Tinning Work	25	0	0
Painter's Work	450	0	0
Tumboolee	512	8	0
Butchers	250	0	0
Leather	174	0	0
Stone Pots	42	0	0
Carried forward, Rs.	39,882	0	0

	Rs.	a.	p.
Brought over, Rs.	39,882	0	0
Khullee	115	12	0
Bamboos	719	0	0
Dry Kurf	42	8	0
Mattings	8	0	0
Khurradee Work	60	0	0
Earthen Pots	15	0	0
Carpenter's Work	65	0	0
Swords	458	12	0
Shoes	403	0	0
Mats	51	0	0
Oil	1,964	4	0
Teak-wood	4,032	0	0
Grass	569	4	0
Charcoal	9	0	0
Tattees	36	8	0
Goldsmith's Work	67	0	0
Ropes	6	0	0
Iron Work	70	0	0
Total of Miscellaneous.....	48,574	0	0

(Signed) T. WEEDING,
2nd Assistant Collector.

7th May, 1858.

Abstract of the foregoing.

	Rs.	a.	p.
Groceries, Medicines, &c.	3,52,116	12	0
Cloths	5,40,648	8	0
Jewellery	30,425	0	0
Gold and Silver	1,44,677	0	0
Copper Coins	5,718	0	0
Bags for Cotton	17,562	0	0
Cotton	1,89,528	0	0
Hoondies Bazar	17,41,003	0	0
Brass and Copper Pots, &c.	40,996	0	0
Grain	2,18,993	0	0
Cattle	7,176	0	0
Miscellaneous	48,574	0	0
Grand Total...	33,37,417	4	0
Deduct amount of Goods unsold	16,675	0	0
Leaving total of business done in the Fair	33,20,742	4	0

Thirty-three lacs, twenty thousand seven hundred and forty-two, and four annas.

(Signed) T. WEEDING,
2nd Assistant Collector.

7th May, 1858.

List of Goods remaining unsold at the termination of the Mhyjee Fair of 1858.

Description of Goods.		Value.		
		Rs.	*a.*	*p.*
Cotton Cloth of Kandeish...		675	0	0
Ditto Surat		1,000	0	0
Ditto Yeolah		600	0	0
Ditto Nagpoor		2,400	0	0
Ditto Booranpoor		12,000		
Total...Rupees		16,675	0	0

(Signed) T. WEEDING,
2nd Assistant Collector.

7th May, 1858.

(True Copies.)

(Signed) S. MANSFIELD,
Collector.

From Captain SCOTT,
22nd Regiment Native Infantry, Commanding Detachment at Mhyjee,

To Captain BIRCH,
Superintendent at Mhyjee.

SIR,—In consequence of the exposed situation which they are in, my men are suffering much from the heat. They state that the tents during the day are, from the extreme heat, hardly tenable.

I would therefore respectfully hope that when it is taken into consideration that my Detachment have a march of more than three hundred miles before them during the month of March, and as, moreover, there are already nearly five per cent. in sick quarters, that you will dispense with our services as early as possible.

I have the honor to be, &c.,
(Signed) J. G. SCOTT, Captain,
Commanding Detachment at Mhyjee.

(True Copy.)
(Signed) T. WEEDING,
2nd Assistant Collector.

Mhyjee, 21*st February* 1858.

No. 1360 OF 1858.

JUDICIAL DEPARTMENT.

TO THE COLLECTOR AND MAGISTRATE OF KANDEISH.

SIR,—I am directed to acknowledge the receipt of your letter dated 12th instant, No. 874, submitting copy of a Report on the Mhyjee Fair for [illegible] 1858 from Mr. Weeding, in charge of the Fair, and to forward to you copy of the Resolution passed by Government on the subject.

Resolution.

The Report by Mr. Weeding on the Mhyjee Fair is far more satisfactory than could, under the adverse circumstances in which not only Kandeish but all Central India is involved, have been expected, and the Right Hon'ble the Governor in Council is glad to observe that Mr. Mansfield considers the results to have been more favourable than might be concluded from Mr. Weeding's Report.

2. The almost total absence of crime is a very gratifying evidence of the excellence of the Police arrangements.

3. The Right Hon'ble the Governor in Council will await the result of the Magistrate's enquiries relative to the absence of proper accommodation for the troops.

4. Mr. Weeding's Report is very full and detailed, and is creditable to his intelligence and industry. A copy of it and of its Appendix should be forwarded to the Chamber of Commerce.

I have the honor to be, &c.,

(Signed) H. L. ANDERSON,
Secretary to Government.

Bombay Castle, 26th May 1858.

REPORT

OF THE

BOMBAY CHAMBER OF COMMERCE

FOR THE

YEAR 1858-59.

PRESENTED TO THE ANNUAL GENERAL MEETING
HELD ON THE 20TH SEPTEMBER 1859.

Bombay:
PRINTED AT THE
"BOMBAY GAZETTE" PRESS.
1860.

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BOMBAY CHAMBER OF COMMERCE,

ESTABLISHED 22ND SEPTEMBER 1836.

List of Members.

Messrs. RITCHIE, STEUART, & Co.
" WILLIAM NICOL & Co.
" ROBERT STRONG & Co.
" EWART, LATHAM, & Co.
" CARDWELL, PARSONS, & Co.
" WALLACE & Co.
" GREY & Co.
" W. AND A. GRAHAM & Co.
" PEEL, CASSELS, & Co.
" A. H. HUSCHKE & Co.
" HEYCOCK & Co.
" LYON, BROTHERS, & Co.
" DIROM, HUNTER, & Co.
" G. S. KING & Co.
" MARTIN, YOUNG, & Co.
" FINLAY, SCOTT, & Co.
" VOLKART BROTHERS.
" MACINDOE, ROGERS, & Co.
" RENNIE, SCOVELL, & Co.

Messrs. CAMPBELL, MITCHELL, & Co.
" LAWRENCE & Co.
" LEGGATT, MCKENZIE, & Co.
" HASTINGS HICKS, SIM, & Co.
" KILLICK, NIXON, & Co.
" LECKIE & Co.
" A. C. BRICE & Co.
" S. BURSTALL & Co.
" W. J. MORGAN & Co.
" B. & A. HORMUSJEE.
" DADABHOY HORMUSJEE CAMA & Co.
P. AND O. S. N. COMPANY.
ORIENTAL BANK CORPORATION.
THE COMMERCIAL BANK OF INDIA.
THE CHARTERED MERCANTILE BANK OF INDIA, LONDON, AND CHINA.
THE CHARTERED BANK OF INDIA, AUSTRALIA, AND CHINA.

COMMITTEE FOR 1858-59.

ROBERT RYRIE, Esq., *Chairman.*
ARCHIBALD ROBERTSON, Esq., *Deputy Chairman.*
WALTER CASSELS, Esq.,
FIELDING SCOVELL, Esq.,
ROBERT WALLACE, Esq.,
} *Members.*

COMMITTEE FOR 1859-60.

HENRY SCOTT, Esq., *Chairman.*
ANDREW GRANT, Esq., *Deputy Chairman.*
A. C. GUMPERT, Esq.,
R. MCILWRAITH, Esq.,
M. H. SCOTT, Esq.,
} *Members.*

Messrs. RITCHIE, STEUART, & Co., *Treasurers.*
H. BROOKE, Esq., *Secretary.*
MACKOONDROW BHAWOO, *Clerk.*

RULES AND REGULATIONS OF THE BOMBAY CHAMBER OF COMMERCE,

REVISED, AND ADOPTED AT THE ANNUAL GENERAL MEETING, HELD ON THE 19TH SEPTEMBER, 1851.

I. That the object and duties of the Chamber shall be to encourage a friendly feeling and unanimity among commercial men on all subjects involving their common good; to promote and protect the general mercantile interests of this Presidency; to collect and classify information on all matters of general commercial interest; to obtain the removal, as far as such a society can, of all acknowledged grievances affecting merchants as a body, or mercantile interests in general; to receive and decide references on matters of usage and custom in dispute, recording such decisions for future guidance; and by this and other means assisting to form a code of practice for simplifying and facilitating business; to communicate with the public authorities, with similar associations in other places, and with individuals, on all subjects of general mercantile interest; and to arbitrate between parties willing to refer to, and abide by, the judgment of the Chamber.

II. That all persons engaged or interested in mercantile pursuits desirous of joining the Chamber, and disposed to aid in carrying into effect the objects of the same, shall be admitted Members by the votes of a majority of a General Meeting, as provided for in Rule III.

III. That an absolute majority of firms constituting the Chamber shall be held sufficient to form any General Meeting when the same has been regularly called together,—one partner representing a firm, but two or more partners in one firm being present, only to count as one Member of the Chamber.

IV. That the Chamber reserves to itself the right of expulsion in case of need, to be decided at a General Meeting by a majority

of three-fourths of the Members present at such General Meeting duly convened.

V. That the subscription of each firm, or Member of the Chamber, shall be Rupees 15 per month.*

VI. That the affairs and funds of the Association shall be managed by a Committee of Five Members, consisting of the Chairman and Deputy Chairman of the Chamber, and three Members, to be elected annually at a General Meeting of the Chamber in the month of September. The Chairman and Deputy Chairman, as the case may be, to be *ex officio* Chairman of the Committee, and in their absence, the Committee to elect their own Chairman; three to be a quorum.

VII. That no two Members of one firm shall be on the Committee at the same time.

VIII. That all questions before the Committee shall be decided by a majority, the Chairman having a second or casting vote in case of an equality of votes.

IX. That the Committee shall meet on Friday, or on such other day as may be found by them most convenient, of every week, to receive and dispose of all communications and references, and to take under their consideration, generally, all matters embraced in the objects of the Chamber, and that their proceedings be laid on the table for the inspection of all Members, subject to such regulations as they may make.

X. That General Meetings of the Chamber be held from time to time, as the Committee for the time being shall propose; that a Special General Meeting shall be called by the Chairman, or by his order, five days after the receipt of a requisition from any three firms—Members of the Chamber; but that a majority of firms, represented by one or more Members from each firm, being Members of the Chamber, be required to constitute such General Meeting; and that the Annual General Meeting shall be held in

* Increased to Rs. 20 by a Resolution of the Annual General Meeting in 1856.

the month of September, on such day as the Committee for the time being shall direct; such Meeting to be convened on a five days' notice.

XI. That the Committee be authorised to provide suitable accommodation for the meeting of the Chamber; to pay all expenses of the establishment, and to control, generally, the management of the affairs of the Chamber.

XII. That all monies or funds of the Chamber, as received, be paid into the hands of the Treasurer or Treasurers for the time being, and that the same be available by cheques signed by the Chairman, or in his absence by the Acting Chairman for the time being, and by one other Member of the Committee.

XIII. That a Secretary be appointed by a majority of Members, in such way as the Committee for the time being may point out; that it shall be the duty of such Secretary to keep the records and accounts of the Chamber, to collect subscriptions, handing the same over to the Treasurer, to conduct correspondence, and to act generally under the directions of the Committee.

XIV. That all the proceedings of the Committee be subject to approval, or otherwise, of General Meetings, duly convened.

XV. That any stranger engaged or interested in mercantile pursuits, visiting the presidency, may be introduced as an Honorary Member, by any Member of the Chamber inserting his name in a book to be kept for that purpose, but that a residence of two months shall subject him to the rule for the admission of Members.

XVI. That an annual report of the proceedings be made, and copies sent to similar associations in India, China, and elsewhere.

XVII. That the foregoing rules be added to, or altered, only by a majority of Members of the Chamber.

XVIII. That the firms whose signatures are attached be considered as acknowledging the "Bombay Chamber of Commerce" as now constituted to represent their public and united interest.

XIX. That the foregoing rules be copied into a book, to be kept with the records of the Chamber, and be signed by all the Members, and that copies be printed and delivered to each firm.

Resolution of Special General Meeting, Nov. 21, 1856.

XX. That in the event of any Member of Committee resigning or declining to serve, the remaining Members of the Committee shall fill up the vacancy.

Resolution of Annual General Meeting, Sept. 29, 1858.

XXI. That for the future all General Meetings of the Chamber shall be advertised in the Newspapers.

REPORT.

YOUR Committee have now to report upon their proceedings, and upon the subjects which have engaged the attention of the Chamber during the past year :—

RAILWAY COMMUNICATIONS.

The following Report has been kindly furnished by the Chief Resident Engineer of the Great Indian Peninsula Railway, which will be doubtless read with interest. The Contract of the Bhore Ghaut has been relet, and there appears every prospect of this important work being actively and successfully carried forward.

No. 1779 OF 1859.

TO THE SECRETARY OF THE CHAMBER OF COMMERCE, BOMBAY.

SIR,—In compliance with the request expressed in your letter No. 82 of the 22nd July, I have the honor to place at your disposal a few Memoranda indicative of the present position and progress during the last twelve months of the Great Indian Peninsula Railway.

I have the honor to be, Sir,
Your most obedient servant,
(Signed) CHARLES B. KER,
Acting Chief Resident Engineer.

Bombay, Chief Resident Engineer's Office, 14th Sept. 1859.

MEMORANDA.

On the 30th September last the length of Railway opened to the public was 130½ miles, viz., Bombay to Campoolee, 71 miles; Khandalla to Poona, 41¾ miles; Callian to Wassind, 16¼ miles;

and Mahim Branch, 1½ miles;—that under construction, 403 miles, viz., Poona to Sholapore, 163½ miles; Wassind to Bhosawul, 226 miles; and the Bhore Ghaut 13½ miles;—that under contract, but not yet commenced, 332 miles, viz., Bhosawul to Jubbulpore;—and that surveyed, but not yet contracted for, 403 miles, viz., Bhosawul to Nagpore, 363 miles; and Sholapore to Moodgul, 140 miles.

"Since the above date, the line from Poona to Decksal, 64¼ miles, has been opened for public traffic; and the Oomrawuttee and Nagpore Branch, 263 miles, has been contracted for. The Company are therefore at the present date in the following position:—

Opened Line.

Bombay to Campoolee	71	Miles.
Khandalla to Decksal	106	„
Callian to Wassind	16¼	„
Mahim Branch	1½	„
Total..	194¾	„

Line under Construction.

Decksal to Sholapore	99¼	Miles.
Wassind to Asseerghur	264	„
The Bhore Ghaut	13½	„
Total..	376¾	„

Line under Contract but not yet commenced.

Asseerghur to Jubbulpore	294	Miles.
Bhosawul to Nagpore	263	„
Total..	557	„

Line Surveyed but not yet contracted for.

Sholapore to Moodgul	140	Miles.

"In addition to the above, a Branch to Indore, the first portion of the main line to Agra, of about 100 miles in length, is being surveyed, and will probably be ready for contract in the course of next hot season, if thought desirable.

"Of the 376¾ miles now under construction, it is the intention of the Company to open for public traffic the 50 miles between Decksal and Barsee Road Station, during next month. The line and works to that point are now in a state of completion, with the

exception of a few of the Station and level crossing arrangements. This extension will open up to Bombay the market of Barsee (20 miles distant from the Station), the largest and most important in the Southern Deccan.

"By March 1860, an additional 49 miles from Barsee Road to Sholapore will be ready for opening. The road-laying for 40 miles is the only impediment to a much earlier completion; all the other works being in an advanced state of progress.

"At this point will terminate for the next three years at least, the opening to the public of all additional extensions of this Company in an easterly or southerly direction.

"Of the Northern Extension from Wassind, the first twenty-six miles to Kussarah will probably be ready for the passage of trains by the beginning of the wet season of 1860, but it is extremely doubtful, considering the character of the climate during the rains in that district, whether any public opening will take place until September or October of the same year. By that time about ninety miles of the Deccan line beyond the Thull Ghaut, and as far as Munmar, a town on the Southern border of Candeish, will also be in a state of completion and ready for opening.

"Within the last few months the point of junction between the Bombay and Madras lines has been fixed at Moodgul—a town about one hundred and forty miles south of Sholapore, but no steps have as yet been taken towards the prosecution of the works to the south of the latter station, it being considered desirable that the extension of the Madras line to that point, which, owing to its greater length, will require a much longer time to construct, should be simultaneously opened to the public.

"With reference to the prospects of this Railway as a commercial speculation, it is worthy of notice that notwithstanding the difficulties with which the Goods Traffic has had to compete in the heavy charges attendant upon its transit by bullock carts up and down the Ghaut between Khandalla and Campoolee, equal to a tax upon all goods of between eighty and ninety additional miles, the net profits during the past year have amounted to upwards of 5 per cent. upon the cost of the opened line.

"This being the case with the Railway in its infancy, when but a fractional part of the produce of the Deccan has as yet taken advantage of it, and when the furthest distant termini are still many hundred miles from the producing districts, thereby enabling the bullock carts to maintain, at much higher rates, a successful

competition,—it is but reasonable to presume that in each succeeding year, as the line advances, the rate of profit will also show a corresponding increase.

"The Electric Telegraph has been completed, and is at work throughout the length of the opened Railway, and is now being extended so as to be available for the service of the public simultaneously with the line itself."

The Report of the Baroda Railway has not yet been received.

ELECTRIC TELEGRAPH.

In reply to a request from the Chamber, Sir W. B. O'Shaughnessy has contributed a most interesting paper which will be found in the Appendix A. It was originally intended to reserve it for the Annual Report of the Chamber, but its general interest appeared so great that it was deemed best to lay it on the Editors' table, and it has been printed entire by several of the Indian papers. The liberality of the Government in conducting this valuable medium of communication at a loss to the revenue deserves the warmest thanks of the Chamber; but your Committee feel confident that the present loss will only be of a temporary character, as the reduction in rates has brought its use within the means of all classes, and, like the Penny Postage system in England, it will doubtless rapidly increase in productiveness. The management of the Telegraph appears as economical as possible consistent with efficiency; but your Committee would venture to express their belief that as soon as a surplus can be relied upon, it would be good policy in the Government gradually to permit those who have deserved well of the public to enjoy the advantages of a high-

er rate of remuneration; as by a regular system of promotion a more efficient and trustworthy establishment might be organised.

The Southern line to Madras and Ceylon appears to work most satisfactorily, but that to Calcutta is still very defective. Your Committee, however, although fully alive to the great inconvenience of the constant irregularities in the transmission of messages on this line, have been deterred from making any special representation to Government on the subject by the fact of the Telegraph authorities having had very great difficulties to contend with during the past two years, arising chiefly from the disturbed state of the country, causing great disorganisation of their establishments—the risk to European life and property for a time rendering it impossible for them to repair such disorganisation.

The Red Sea line from Aden to Alexandria is in good working order, and waits only some minor arrangements to be opened to the public; the cable to complete the line to Kurrachee is also ready, and will shortly be shipped from England; and it is a source of gratification to know that about the 1st March next the entire line will be completed, and we shall probably be then enjoying the privilege of direct telegraphic communication with England.

MAIL COMMUNICATION WITH EUROPE.

The working of the existing arrangements has now had a fair trial, and your Committee believe that their inconvenience in some respects is universally felt and admit-

ted. During the past year several propositions have been brought forward for the improvement of the present arrangement, but that of Dr. Impey, the Post Master General, though the most comprehensive, did not appear to accomplish the desired object, while at the same time it entailed an additional subsidy from Government for extra steamers to carry out the details of the plan.

A mail route to Suez *viâ* Kurrachee was proposed by the P. & O. Company, but that also had the disadvantage of an increased cost, and for the present the Government leave the matter in abeyance; but your Committee believe that the only real amelioration of the existing inconveniences will be direct weekly communication with Aden—two steamers monthly to Suez, as at present, and two steamers alternately to Aden only, to meet the direct steamer from Calcutta; by this means (Bombay being the nearest point to Great Britain), and our Electric Telegraph system, the earliest European intelligence could be transmitted to all parts of India. Your Committee are therefore of opinion that no favorable opportunity should be lost of calling the attention of Government to the question. From the following table, kindly furnished by Mr. Ritchie, Superintendent of the P. & O. Company, it will be seen that the speed of the contract mails *via* Marseilles has been considerably increased of late. With a finer class of steamers and the more expeditious transit across the Isthmus of Suez, hopes may reasonably be entertained of the further acceleration of our communications with England. (See Appendix B.)

Statement showing the average Number of Days to and from the undermentioned Ports, from 1856 *to* 1859, *stoppages inclusive.*

FROM ENGLAND TO BOMBAY VIA MARSEILLES.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Average.
	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	No. of Days.	
1856	*36 20	28 23	30 1	24 15	26 10	25 15	26 14	26 5	28 3	27 21	26 19	32 21	27 14
	28 3	27 23	29 21	26 13	25 16	24 16	25 14	24 1	27 12	28 8	26 13	27 3	
1857	27 13	27 16	27 11	24 21	27 15	25 22	26 10	23 22	25 5	27 10	29 14	27 8	26 11
	25 11	25 15	26 0	26 21	25 6	24 18	26 12	24 22	26 12	27 21	25 13	29 11	
1858	26 6	24 12	26 11	24 1	22 2	21 0	21 17	21 21	25 11	24 4	24 13	25 10	23 17
	24 23	26 23	23 21	23 3	24 10	21 19	20 20	22 10	21 17	23 19	25 11	23 3	
1859	25 2	21 12	23 7	22 5	21 19	21 10	21 20	.....	.....	.....	.....	.....	23 11
	23 20	26 7	24 3	25 21	†31 10	22 22	21 12						
Bi-monthly Average	27 6	26 4	26 9	24 18	25 14	23 12	23 21	23 21	25 18	26 14	26 10	27 13	25 15

FROM ENGLAND TO BOMBAY VIA SOUTHAMPTON.

1856	*42 0	34 4	35 21	29 20	31 21	30 20	31 19	31 10	33 8	33 2	32 15	38 2	32 22
	33 14	33 4	35 2	32 0	31 12	29 20	31 1	29 6	32 17	33 13	31 18	32 8	
1857	33 0	32 21	32 18	30 2	32 10	31 3	31 15	29 18	30 10	32 9	34 19	32 13	31 18
	31 7	30 20	31 5	32 2	30 11	29 23	31 17	30 3	31 23	33 17	30 18	34 22	
1858	.....	33 4	36 2	30 8	30 15	28 0	28 1	28 15	27 22	30 15	31 16	29 8	29 20
	.....	32 16	30 6	28 22	27 5	27 22	28 2	31 16	31 9	30 18	31 15	29 23	
1859	30 7	27 17	29 12	28 10	28 0	27 21	28 1	.....	.....	.....	.....	.....	30 5
	31 1	30 18	32 5	32 2	†38 15	29 18	28 17						
Bi-monthly Average	33 13	31 22	32 3	30 11	31 8	29 10	29 21	30 3	31 7	32 8	32 4	32 20	31 11

* *Pera* broke down, and put into Lisbon, remained 8 days.
† *Malta* broke down in Red Sea. Mails brought down to Bombay per *Concordia*.

The many disadvantages which the Port of Bombay has had to contend with in these respects, have long occupied the earnest attention of the Chamber, and it will be found on reference to the correspondence for the last seven or eight years, that no opportunity has been lost of urging these evils on the attention of Government.

The new Acts of the Legislative Council, Act XXII. of 1855, for the Regulation of Ports and Port Dues, and Act XXXI. of 1857, for the Levy of Port Dues and Fees in the Port of Bombay, which came into operation in January 1858, appeared to meet the chief causes of complaint, but no measures beyond the exaction of the port dues having been taken by the local Government towards carrying out the provisions of these Acts up to the month of September, the Chamber addressed the Government on the subject as follows:—

"No. 102 of 1858.

"To H. Young, Esq.,
Chief Secretary to Government, Bombay.

"Sir,—Since the Committee of the Chamber of Commerce last communicated with Government relative to the necessity of improvement being made in the system of Pilotage in Bombay Harbour, the Act XXII. of 1855 for the Regulation of Ports and Port Dues has come into operation, and, under Act XXXI. of 1857, the levy of Port Dues on shipping commenced in January last.

"Both these Acts have an important bearing upon any proposal for the improvement of the Harbour and Pilotage arrangements. The Committee adopt them as the basis of their suggestions, and while strongly impressed with the necessity which exists for the introduction of a system which will meet the in-

creasing demands of the trade of Bombay, they desire, in the alterations which they now propose for the consideration of Government, to keep within the scope and intentions of the law which is now in operation.

"The Act XXII. lays down a complete Code of Port Regulations. It appoints the Master Attendant to be Conservator of the Port, vests him with large powers, defines his duties, and places the Pilotage establishment under his control. It provides for the keeping of distinct accounts of the Port Fund, showing in detail the receipts and charges, and for their audit and publication annually; it provides also for payment of advances by Government, and of interest on the same, and orders that this fund is to be charged with all expenses, including the pay and allowances of all persons upon the Port establishments, cost of buoys, beacons, lights, or other works, maintained for the benefit of shipping, but excluding Pilotage receipts and expenses.

"Looking at the important position assigned to the Master Attendant by the new law, his various and onerous duties, and large powers, and the necessity which exists for imposing on him a direct personal responsibility for their proper exercise, and for negligence or incompetence in his office, the Committee beg to submit that the first measure to be adopted is the reconstruction of the Master Attendant's establishment as a distinct department, and its complete separation from the Indian Navy and Government Dockyard.

"An examination of the present organisation of the Master Attendant's department will, the Committee conceive, show how necessary this is to make it efficient, and carry out the intentions of the Act. As at present constituted, it consists of—

"1st.—The Master Attendant, who is always a Senior Officer of the Indian Navy, the appointment lying in that service. He is selected, the Committee believe, rather with respect to rank than any special knowledge or fitness for the office. He is transferred or removed at the pleasure of the Naval Commander-in-Chief. He has no direct responsibility to the public, as all questions regarding the port are not referred to him, but to the Naval Commander-in-Chief, and incompetence or neglect of duty would, at worst, only lead to his removal from the appointment, but would not affect his position in the Indian Navy. The pre-

sent Master Attendant, Captain J. W. Young, is an able and much esteemed officer, but he is also Assistant Superintendent of the Indian Navy, an appointment which, the Committee are of opinion, is altogether incompatible with the due performance of his duties to the mercantile and shipping interest.

"2nd.—Three Assistants, whose appointments lie in the patronage of the Naval Commander-in-Chief, and who have generally served in the Indian Navy.

"3rd.—The Pilotage establishment.

"4th.—The Dockyard Boatswain and Sail-maker.

"The whole department is attached to the Dockyard, has Dockyard duties to perform, and is under the sole and irresponsible control of the Naval authorities.

"It is easy to trace how the Master Attendant's department has fallen into this position, and as long as the expenses of the port were chargeable against the general revenue, and its functions were performed with tolerable efficiency, the mercantile community had no special interest in enquiring into the amount of its expenses, or the nature of its constitution, but the new law has changed all this.

"The whole expenses of the Master Attendant's department, lights, buoys, &c., now fall upon the shipping. It is respectfully submitted that the shipowners and merchants have a right to expect that no portion of a fund collected for these objects shall be applied to other purposes, or contribute towards the expenses of another and entirely distinct Government establishment. Whilst the Master Attendant's department is constituted as at present, it appears to the Committee that it will be difficult, if not impossible, to distinguish in the expenditure what should properly be chargeable to the Indian Navy, and what to the mercantile shipping,—that no check can be kept over the expenditure and application of the fund,—that the direct and sole responsibility of the Master Attendant, as contemplated by the law, cannot be enforced,—and that the usefulness of his establishment will be seriously impaired. The Committee therefore submit,—

"That Government, under Sec. VI., should appoint a Harbour Board or Commission, say of five persons—1st, The Collector or Commissioner of Customs, as under Sec. XLV. he is appointed to receive the port dues, and from his position is in daily com-

munication with the merchants of Bombay. 2nd and 3rd, Two members possessing good practical knowledge of marine matters, it appears to the Chamber, should be chosen. 4th, Lloyd's Agent in Bombay. 5th, A member to be chosen as a representative of the mercantile community. The appointment of Master Attendant should either be thrown open to competition, or, if given to an officer of the Indian Navy, it should be on the distinct understanding that he will be responsible only to Government and the Harbour Commission, be under no other control, and be unable to hold any other appointment. When these preliminary measures are carried out, the Committee see little difficulty in placing this department on an efficient basis. The Commission, acting along with the Master Attendant, would determine what office staff and assistants were necessary, and from the ample provisions of the Act, it would be easy to compile a complete Code of Bye-laws and Regulations for the port, alterations in which can be made from time to time, as they are found necessary.

"It might be advisable that the Master Attendant should be Marine Magistrate, as he is at Madras, Point de Galle, and other ports; and when the new Mercantile Marine Act for India, now before the Legislative Council, comes into operation, the Shipping Master's department might advantageously be incorporated with that of the Master Attendant. These arrangements, however, can stand over for future consideration.

"LIGHTS.—As, under the new law, the expense of all lights, buoys, &c., falls upon the Port Fund, and as the Committee conclude that Government will charge it with the estimated value of the present light vessels, buoys, &c., and the cost of their maintenance, they consider it will be as well to ascertain, by at least one year's experience, what the income and expenses are likely to amount to, before suggesting any alteration in the present system.

"PILOTAGE.—The Chamber observe that a separate account is to be kept of the receipts and expenses of the Pilotage establishment, and conclude that it will remain under the responsible control and management of the Master Attendant, an arrangement which will render necessary its complete severance from the Government Dockyard, and which will be the first step towards placing it on an efficient footing.

"With every wish to see a system of free pilotage introduced, such as exists on the coast of England, and which would give a stimulus to individual exertion, the Committee see several difficulties in the way, and consider it will be better to continue for the present a fixed scale of pay, as under the existing system; but they would suggest, that, as vacancies occur, they should be thrown open to public competition; that if the funds admit, the pay and allowance should be increased, and a sum set apart for a sick and superannuation fund. If this were done, the Committee believe that in the present depressed state of the shipping interests, many shipmasters, holding first class Board of Trade certificates, would be found among the applicants for employment. The Committee are inclined to conclude, from the opinions of parties competent to judge, that the present description of Pilot-boats is well adapted for use in this harbour during the fair weather monsoon, and that what is wanted is an increase in the number of men (actually doing duty as Pilots) and boats. Even this may not be necessary if a proper system of working is introduced, and encouragement given to diligence on the part of the Pilots, the men being kept to their own proper duties, and not being liable to be detached for service in any other department.

"For the three months during which the S. W. monsoon prevails, the Committee consider that it would be best to revert to the old plan,—that is, to have a Pilot Brig of about 200 tons, anchored well out, and that this vessel should beat out of the harbour every morning at daybreak, to lead in any ship making the port, or, if the weather permitted it, to place a Pilot on board, returning to the anchorage at night-fall. This Pilot vessel to be commanded by one of the Senior Pilots, with two or three Assistant Pilots, and a native crew, and to be paid off, stripped, and laid up in ordinary from the end of August, and throughout the N. E. monsoon. There are other details to which the Committee have not alluded, but they desire to have some experience of the working of the law, and to know the amount of the port and pilotage revenue and expenses before extending their suggestions. They trust, however, that the Government will see the necessity of severing the connection of the Master Attendant's department with the Indian Navy and Dockyard, as until this takes place, the new law will remain a dead letter, and the com-

mercial and shipping interests of this port will continue to suffer from its inefficiency.

"I have the honor to be, Sir,
"Your most obedient Servant,
(Signed) "J. A. CROWE,
"Acting Secretary.

"*Bombay, Chamber of Commerce, 24th September* 1858."

This letter expressed the views of the Chamber on the several points adverted to, but the Committee, viewing the whole question as one of much importance, were disappointed to be without any reply from the Government till the 30th June last, when they received the following Resolution passed on the 28th of that month:—

No. 2487 OF 1859.

REVENUE DEPARTMENT.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE, BOMBAY.

SIR,—With reference to the communications, marginally noted, I am directed to forward for the information of the Chamber of Commerce, the accompanying copy of a Resolution which has been passed by Government on the subject of the Harbour and Pilotage arrangements at Bombay.

Letter from Mr. Crowe, No. 102, dated 24th September 1858.
Letter from Mr. Mawson, No. 89, dated 15th April 1859.

I have the honor to be, Sir,
Your most obedient Servant,
(Signed) H. B. ELLIS,
Acting Secretary to Government.

Bombay Castle, 28th June 1859.

RESOLUTION PASSED BY GOVERNMENT ON 28TH JUNE 1859.

"In the first suggestion for the appointment of a Harbour Board, Government cannot concur; all experience shows that in India, if not elsewhere, a Board is the worst machinery

that can be devised for the management of executive details. These will be left to the Master Attendant, who will be responsible to his immediate superiors for the proper execution of his duty.

"2. The Chamber may be informed that the question of disconnecting the Dockyard duties of the Master Attendant from those which relate to the interests of the mercantile shipping had, for some time past, been under consideration, and Government have now passed a Resolution, finally deciding on the immediate disseverance of the duties, and requesting the Commander-in-Chief Indian Navy, and Commissioner of Customs, to submit the details regarding salaries and establishments required, to give full effect to this decision.

"3. The duties of the Master Attendant will, in future, be wholly disconnected from those of the Dockyard or of any other appointment, and the Pilot establishment will be under his responsible control and management.

"4. The Master Attendant will be under the control of the Commissioner of Customs in respect to all matters relating to port dues, collections, and revenue matters, while in regard to nautical and marine questions connected with the port, he will be under the control of the Commander-in-Chief of the Indian Navy. The Master Attendant will not, however, be considered as belonging in any way to the Indian Navy, though his proceedings will be supervised by the Commander-in-Chief of the Indian Navy, who is the officer best qualified to decide all naval questions. When the matter for decision partakes of both a revenue and marine character, the Commissioner of Customs and Commander-in-Chief will decide it in consultation and concert with one another.

"5. It is suggested that the Master Attendant be a Marine Magistrate. It may probably be found useful to vest the Master Attendant with such powers for occasional emergencies, but it does not appear desirable to add the judicial work of a Magistrate's office to the varied duties of Master Attendant. Moreover, it may not unfrequently happen that the person best fitted to fill the office of Master Attendant, would make an indifferent Magistrate.

"6. No good and sufficient reasons have been assigned for altering the present constitution of the Pilot service. When vacancies occur, selections are usually made from the merchant

service, and no one is admitted without an examination in seamanship. His Lordship in Council believes that, as a body, the Pilots are most efficient. They enjoy the privilege of pension, and he is not aware that the Pilots have reason to complain of inadequate remuneration, though he would gladly advocate an increase of their pay, if financial considerations admitted it.

"7. His Lordship in Council understands that a Pilot Brig is ordinarily stationed at the mouth of the Harbour during the monsoon, to lead in ships making the port. The *Euphrates*, which has been under repair, will shortly be ready for this duty, and thus nothing remains to be done in respect to the sixth suggestion of the Chamber."

(True Copy)
(Signed) H. B. Ellis,
Acting Secretary to Government.

The exact position of this question is thus before the Chamber. The separation of the Harbour Establishment from the Dockyard is only nominal, the evils of the old system still exist in full force, and practically the new Harbour Act, which was intended to accomplish so much, still remains a dead letter so far as regards the port of Bombay. Your new Committee will, no doubt, adopt whatever further steps may be deemed expedient or advisable in this matter; the levy of port dues in the mean time must be accumulating a large fund, and an application has been made to Government, through the proper channel, for a return of the receipts and disbursements.

COTTON CULTIVATION.

This subject has attracted an unusual amount of attention during the past year, and although it can hardly be said that any real novelty has been brought forward,

the discussion has perhaps assumed a more practical form than heretofore, owing chiefly to the suggestions and assistance of the Cotton Supply Association of Manchester. It is difficult to point to any direct action that the experiments have produced on the improvement of Cotton as a mercantile article, but your Committee are nevertheless far from believing that the large sums expended by Government and the smaller essays of private individuals have been without an important indirect influence. It is sufficient to point to the very great improvement in the intrinsic quality of Indian Cotton generally as compared with what it was ten years ago, to be convinced that the natives, at all events in some of the most productive districts, have become fully alive to the advantages to be derived from an improvement in the quality. It may be said that a cycle of high prices is the cause; but this view is hardly tenable, as it was found formerly (and even so lately as seven years ago) that with each increase of price a corresponding increase of seed and rubbish was almost invariably the concomitant. Your Committee have therefore deemed it their duty to give every reference upon this subject their full and careful consideration, and to aid the laudable efforts of Government by prompt attention to their enquries.

Irrigation has been tried on a small scale, but without any very decided or important result; and it may be presumed that not much benefit can be expected from this source, as Cotton is essentially a sun plant, and unless irrigation be performed with a perfect knowledge of its habits and physiology, the employment of it is as likely to lead to a reduction as to an increase of yield.

Much attention has been devoted to the question of early and late sowing, and although the most experienced of the Government experimentalists have expressed themselves in the most decided terms against the possibility of a beneficial result from early sowing, your Committee have thought it of sufficient importance to recommend its being tried on a small scale in different places in the Bombay Presidency, and the Government have given directions accordingly; experiments will be prosecuted simultaneously next season upon a systematic plan, in order that the whole of the circumstances attending the experiments may be shown in a convenient form, and it may be expected that some valuable information may be thus elicited.

The experiment has been comparatively successful in Dharwar, where the most refractory of the varieties of Cotton, the Sea Island, has been cultivated with success at small expense, and a very fine sample has been produced which has been valued in Liverpool by experienced brokers at 1*s.* 4*d.* to 1*s.* 6*d.* per lb. The produce per acre having been equal if not in excess of the native variety, the profit from the cultivation will probably be sufficient to induce the undertaking of experiments on a larger scale.

The Chamber has been in repeated communication with the Cotton Supply Association of Manchester, and at the suggestion of your Committee that body has authorised the prosecution of experiments with exotic Cotton on a moderate scale under native superintendence, and have voted a sum of £400 for that purpose; at the same time expressing a hope that the vote will be

increased by subscriptions on this side. It is proposed to commence these experiments before the setting in of the next monsoon. A considerable quantity of the best American Cotton Seed has already been received from the Association and distributed in the various districts of Scinde, Khandeish, Guzerat, and the Southern Mahratta Country, and it is hoped that the Chamber may in the course of the ensuing season have the result of its cultivation to lay before the Members. The subject of cleaning Cotton has also received the attention of the Chamber, and the Cotton Supply Association have sent out several McCarthy Gins for the purpose of their being practically tested in this country. It is, however, to be regretted that the experiments hitherto tried with this machine have not been as satisfactory as could be wished, as the Gin, from the difficulty of its adjustment, appears liable to get out of order, and its produce is not above one-fourth of that of the Saw-gin, and, as far as is yet ascertained, not much in excess of the Broach Churka; while the expense of the machines and the laborious nature of the application of power appear likely to militate against its extended use. The machines will however be placed in the hands of those who will give them a fair trial, and the question of their applicability will be brought to a practical test in the course of the next few months.

Numerous samples have been from time to time submitted for examination and report, but beyond the desirable object of keeping the attention of the public directed to the subject, but little of a practical nature has been elicited.

The number of acres under cultivation with American Cotton in Dharwar during the last nine years is as follows :—

	New Orleans Kupas.	Native Kupas.	Total.
1850-51	31,668	223,314	254,982
1851-52	42,647	221,676	264,323
1852-53	28,010	251,113	279,123
1853-54	41,405	252,006	293,411
1854-55	63,298	210,260	273,558
1855-56	50,802	191,196	241,998
1856-57	12,350	196,929	279,279
1857-58	100,813	252,843	353,653
1858-59	105,406	214,993	320,399

The improvement of subsidiary shipping ports has received the consideration of the Chamber, but the unsatisfactory state of Indian finances has rendered any decided action on this point for the present useless, and your Committee have therefore thought it prudent to abstain from urging it upon the Government.

The Members of the Chamber will find in the Appendix C the whole of the correspondence on the foregoing topics, and although somewhat lengthy, it will, your Committee believe, not be found uninteresting.

COTTON FRAUDS.

The attention of the Chamber has been directed to this subject by the East India and China Association of Liverpool, and your Committee have endeavoured to obtain some clue to the place or places where the adulteration may be inferred to have commenced. The sample of stones forwarded has been submitted to Dr.

Birdwood, Curator of the Museum at Bombay, and to Dr. Buist, who has always devoted much time and attention to geological subjects. The former gentleman is of opinion that the geological nature of the stones is not conclusive evidence of the place where the adulteration took place, as the stones, although produced elsewhere, may have been fraudulently screwed up in the bales at Bombay, having been obtained from the heaps of ballast brought by Pattimars and other craft from different ports of the coast. Dr. Buist has kindly forwarded an interesting and elaborate paper on the origin of the stones, and his conclusions are well worthy of consideration. Your Committee have given these papers the fullest publicity, and it is to be hoped that these frauds will become less numerous in future, as by close watching at the presses during the repacking of the Cotton, your Committee believe that the introduction of stones or other foreign substances could, to a great extent, if not altogether, be prevented by the shippers. (See Appendix D.)

FLAX CULTIVATION.

This important subject has received the earnest attention of the Committee, but they have found it difficult to propose to Government any very definite course; as the production of the article of sufficiently good quality to compete with that of Europe, requires a degree of skill and experience in its preparation, which would render well-paid European superintendence absolutely necessary.

The seed (Linseed) is produced largely in this presidency, but your Committee believe that in this part of India, the cultivation of Flax,—requiring, as it does, much care, skill, and labour, while it is at the same time attended with considerable risk,—can only be successfully accomplished by European enterprise as well as European superintendence; for to the cold and unspeculative minds of the natives, the cultivation of the seed, requiring no skilled labour, and being attended with little risk, will always be preferred. It is easily produced, and always finds a ready market; whereas, in the production of Flax, there are difficulties arising from climate, as well as from the deficiency of water for nine months of the year in unirrigated districts. In the Punjaub, however, a very fair quality of Flax has been produced, and your Committee have hopes that when the effects of the late mutinies shall have been obliterated, and the finances admit of it, a further prosecution of experiments under Government superintendence will lay the foundation of an important addition to the Indian staples. In handing over this subject to their successors, your Committee cannot help expressing a regret that the peculiar circumstances of the times have prevented their adopting a more decided course, but they regard the subject with much interest, and hope at a future time for a more definite indication of progress than they are able to record.

The Chamber's letter to the Chief Secretary to Government on this subject, which will be found in Appendix E, expresses more fully the conclusions which, after some care and consideration, have been arrived at.

LINSEED OIL.

A sample of very good oil, produced in the Jail at Rutnagherry, was received from Mr. Bettington, Inspector General of Prisons. Its cost, however, as stated by Mr. Bettington, was greatly in excess of its market value here; and its manufacture does not appear likely, therefore, to become an economical employment in prison discipline. It is produced with success and profit in Bombay to the extent of local requirements, but the necessity of shipping the cake to England for sale will, it is to be feared, militate against any very extensive increase in its manufacture. (See Appendix F.)

CLOVE OIL.

A sample of this essential oil was received from Mr. McCoy, of Sholapore, and satisfactorily reported on. It is, however, an article competed with by cinnamon-leaf oil, and is not of large consumption in Europe. It is also usually somewhat unsaleable, and the value having fallen to a very low standard, it is hardly likely to be produced profitably, or to become an article of important export. (See Appendix G.)

SHEEP'S WOOL.

A very superior sample of this important produce was forwarded to the Chamber by Mr. Henry Cope, of Umritsur, and reported as worth from 14*d.* to 15*d.* per pound. It is gratifying to remark that this article con-

tinues to be produced in large quantities, and there appear good grounds to hope that the quality will continue steadily to improve. The Government have purchased the flock of Merino sheep imported from the Cape by the late lamented Lieut.-Colonel Holmes, of the 12th Irregular Cavalry, and doubtless everything will be done to naturalise this valuable animal in districts suitable to its peculiar habits. (See Appendix H.)

SILK.

The Chamber is indebted to Mr. Henry Cope, of Umritsur, for the presentation of a Pamphlet containing an account of the experiments tried in the Punjaub, during several years, by Government as well as by private individuals. These experiments present the usual features of great expectations and small results; but as far as your Committee are able to judge, there appear at least some hopes of a favorable result, if private individuals could spare the time for a continuous prosecution of experiments. The papers are interesting and well worth the careful perusal of any persons who may have at command the requisite leisure and inclination to renew the attempts.

GRAVING DOCKS.

The disadvantage in this respect to which Bombay has been subjected by the absence of adequate provision for its enormous increase of mercantile shipping, is now in progress of being neutralised by the lease of the

Government Dockyard at Mazagon to the Peninsular and Oriental Steam Navigation Company, who, on the completion of the works, will relinquish their present premises, which will then become available to the public through private agency. By this means a fair amount of competition will be ensured, and the evils of a monopoly will be obviated. (See Appendix I.)

WET DOCKS, &c.

The present year has been prolific in schemes for the furtherance of the increased accommodation so urgently required by the growing trade of Bombay, and the Chamber has given its best attention to the subject. It is, however, now in temporary abeyance, pending the arrival of the eminent engineer, Mr. Stephenson, to whom, it is believed, the various plans are to be submitted. His presence amongst us may be expected in a few months, when your Committee have no doubt that their successors will be able to contribute their quota to the elucidation of so urgent a necessity. As it is probable that much more light will be thrown on the subject, it is perhaps as well to refrain from expressing at present any very decided opinion on the merits of the respective propositions. (See Appendix J.)

NEW TARIFF.

The Members of the Chamber of Commerce need not be reminded of the excitement that prevailed in Bombay on the passing of this Act, and although this excite-

ment has now passed away, and the local Government has shown the greatest courtesy in entertaining the suggestions and representations of the mercantile community, your Committee cannot refrain from stating their conviction that the principle of high Import Duties is injurious to the welfare of trade, and indeed ultimately to the finances of the empire. They therefore trust that the present tariff will be repealed at as early a period as the pressing wants of the Government will permit. The appointment of Mr. Wilson, the experienced political economist, to a seat in the Legislative Council, your Committee regard as an earnest of more enlightened measures, and they look with confidence to an early adoption of such enactments as may devolve the chief burden of taxation on accumulated property, for the protection of which the main expenses of the Government are undoubtedly incurred. Your Committee feel that they enunciate the sentiments of the mercantile community at large, when they express their willingness to contribute equitably to the inevitable burdens of the country; but that the late measures have hardly been conceived in a spirit to afford satisfaction to the trading classes.

Your Committee, on the ground of hardship to individuals, had in view an application to the Supreme Government to refund the extra duties paid on goods sold to arrive, but on ascertaining the exact amounts incurred by individual firms, they have thought that such an application would hardly be successful; and looking to the time that has elapsed, and the changes which have taken place in the Government, they have considered

that it would now be unwise to re-open or press the question any further. They trust the Chamber will adopt this view, and give the Committee credit for their anxiety to promote the interests of individual members, as well as the welfare of the public at large. (See Appendix K.)

DRAWBACK SYSTEM.

It was proposed by Government to discontinue the present plan, relying upon the apparent availability of the Bonding system to supply its place. Your Committee, however, after ascertaining the sense of the community, and giving the subject their fullest consideration, found that the proposition was so beset with difficulties and probable danger to the trade of the port, that they have strongly recommended Government to leave matters as they now stand. It does not appear that the system in use is either expensive or over-troublesome, and it would seem, therefore, to be unwise, at all events under existing circumstances, to disturb arrangements which give general satisfaction to the public, without entailing any loss upon the revenue. (See Appendix L.)

REPORT OF THE TRADE OF BOMBAY.

The usual Annual Statement has been furnished by Mr. Spooner, the Commissioner of Customs, and will doubtless be read with interest by the members. The statement is so important, and the particulars it con-

tains so clearly systematised, that your Committee have not thought it necessary to furnish an abstract of its contents; a reference to the work itself being the readiest mode of forming a just estimate of the rapid increase of trade in this Presidency.

WEIGHTS AND MEASURES.

The desirability of an uniform system of Weights and Measures is universally recognised, but the arguments in favor of each system are so nicely balanced, that your Committee have felt that it would be almost beyond their scope to express any decided opinion on the subject here. The variations of the Candy and the Maund in India they feel might be advantageously obviated by a more general employment of the English hundredweight in the presidencies, leaving the up-country dealers to settle their accounts according to their own customs; but while the highest opinions in Europe are still at variance as to the hundredweight, duodecimal or decimal system, your Committee would deprecate any legislative action on the subject. It does not, however, appear so important that either of these systems should be adopted, as that the subdivision of the weights should be assimilated to that of the coinage in most common use; and as pounds, shillings, and pence are, in British territory, generally the measures of value, it might be practicable to make the hundredweight equivalent to 120 lbs., so that the unit of value would be equal to that of weight. It is, however, a subject upon which the Chamber is unwilling to ex-

press any decided opinion, but as it is one of great importance to the trading community, your Committee believe that every convenient opportunity for eliciting opinions and suggestions should be availed of. (See Appendix M.)

CLEARING LUNAR DISTANCES.

Lieut.-Colonel Shortrede has perfected a new method of Clearing Lunar Distances, and has furnished the Government with copies of his system. The Chamber has been supplied with these papers, and has distributed them to the shipping interest, who will no doubt make a good use of them. The Chamber is not however able to express an opinion as to their practical value, but from the eminence of Colonel Shortrede's mathematical attainments, they feel that they can recommend them with confidence to those interested in the subject. (See Appendix N.)

MHYJEE FAIR.

The report of this extensive Fair will be found this year particularly interesting, and special attention may be drawn to the large amount of gold and gold ornaments disposed of, the amount being Rs. 149,706, while of silver only 124,850 found buyers. This appears to be a satisfactory proof of the increasing wealth of the producing classes, and is suggestive as bearing upon the question of the desirability of the present bulky and inconvenient silver currency being replaced

by the more economical and easily procurable one of gold. This question your Committee think might be advantageously discussed at a time when such questions are likely to receive a patient and enlightened hearing from the newly appointed Member of Council, Mr. Wilson. (See Appendix O.)

FUNDS OF THE CHAMBER.

The balance to the credit of the Chamber on the 31st July last amounted to Rs. 5,221-3-59, showing an increase of about Rs. 1,000 against the same period last year.

DEATH OF MR. MAWSON.

The Chamber have to express their great regret at the lamented death of their late Secretary, Mr. Mawson. This melancholy event, coupled with the departure of their Acting Secretary, Mr. Crowe, occasioned some delay in the general business of the Chamber; but the arrears are now disposed of, and there remain only the current questions of the day to be dealt with by your Committee's successors.

CONCLUSION.

In replacing in the hands of the Members of the Chamber the important trust with which your Committee have been honored, they may be permitted to express a confident hope that the efficiency and influence

of the Chamber remain unimpaired. They have great pleasure in acknowledging the constant courtesy and attention with which their representations have been received by the Right Hon'ble the Governor in Council, the cordiality with which their communications through the Commissioner of Customs have been seconded, and the confidence displayed by public bodies and individuals; among the former they beg especially to thank the Cotton Supply Association for the enlightened and practical views and liberal assistance afforded by that patriotic institution.

They have now only to recommend to their successors the further prosecution of those important measures of improvement which have unavoidably been left incomplete, and to thank the Members generally and the community at large for the patient consideration of the subjects that have been from time to time laid before them, and which has been of such eminent service in enabling them to form correct conclusions.

Minute of Proceedings at the Annual General Meeting of the Chamber of Commerce of Bombay, held on Tuesday, the 20th September 1859.

PRESENT:

ROBERT RYRIE, Esq., *Chairman*, in the Chair.

MEMBERS.

F. SCOVELL, Esq.	J. BEVIS, Esq.
G. HAMILTON, Esq.	S. BURSTALL, Esq.
J. LAWRENCE, Esq.	A. GRANT, Esq.
G. LORD, Esq.	C. LEGGATT, Esq.
GAVIN STEEL, Esq.	W. CASSELS, Esq.
T. F. GREY, Esq.	R. P. NIXON, Esq.
H. D. CARTWRIGHT, Esq.	R. MCILWRAITH, Esq.
H. SCOTT, Esq.	W. SIM, Esq.
A. C. GUMPERT, Esq.	and
T. BRADLEY, Esq.	J. FLEMING, Esq.

The Annual Report of the Committee having been read, it was moved by G. Hamilton, Esq., seconded by T. F. Gray, Esq., and unanimously

RESOLVED,—That the Report now read be approved of and printed for general information, together with the documents therein referred to.

It was moved by Clement Leggatt, Esq., seconded by A. Grant, Esq., and unanimously

RESOLVED,—That the Members of the Committee retiring are entitled to, and do receive the thanks of

the Chamber for their attention to its interests during the year of office now expired.

It was moved by John Fleming, Esq., seconded by Fielding Scovell, Esq.,

That the Committee for the ensuing year shall be as follows:—

H. D. CARTWRIGHT, Esq., *Chairman.**
HENRY SCOTT, Esq., *Deputy Chairman.*
A. C. GUMPERT, Esq.,
A. GRANT, Esq.,
R. MCILWRAITH, Esq.,
} *Members.*

A letter from Messrs. Ritchie, Steuart, & Co. was read, informing the Chamber that the balance to their credit amounted to Rs. 5,221-3-59.

The following Firm was balloted for and declared duly elected:

Messrs. W. J. Morgan & Co., proposed by T. F. Gray, Esq., seconded by H. Brooke, Esq.

It was then moved by H. D. Cartwright, Esq., and seconded by T. F. Gray, Esq.,

That a vote of thanks should be returned to the Chairman for his conduct in the Chair. The resolution was unanimously passed, and the Meeting separated.

* Mr. CARTWRIGHT having subsequently resigned, was succeeded by Mr. HENRY SCOTT as Chairman, the Deputy Chairmanship having been offered to, and accepted by, Mr. T. F. GRAY.

APPENDICES.

APPENDIX A.

ELECTRIC TELEGRAPHS.

Electric Telegraph Department.

No. 679.

To H. Brooke, Esq.,
Secretary to the Chamber of Commerce, Bombay.

Sir,—In reply to your letter dated the 22nd July, I have the pleasure to send you the annexed extracts from my Annual Report to the Government of India on the state and progress of the Telegraph Department during the official year 1858-59, with Notes reporting progress up to the 31st July.

2. The Malabar Coast Line was commenced last year, and about fifty miles constructed. But the financial difficulties of the time led to the discontinuance of the works, which can only be resumed by the renewed orders of the Government of India.

3. The Chamber of Commerce may feel assured that as soon as the sanction of Government is renewed, the works shall be recommenced and completed with the utmost possible despatch.

4. The Chamber are at full liberty to make public use of any of the annexed extracts which they may deem of general interest.

5. Although not prominently dwelt on in the Report, I am happy to invite the attention of the Chamber to the gratifying fact that since the commencement of this monsoon, the heaviest which has visited the West Coast of India for many years, communication has been so regular and rapid between Bombay, Madras, and Galle, that the mail news from Galle to Bombay,

and *vice versâ*, is usually transmitted in two to four hours. From the commencement of next fine season, I confidently believe that the whole of the Indian lines and offices* will be worked with equal efficiency.—I have the honor to be, &c.,

(Signed) W. B. O'SHAUGHNESSY,
Superintendent Electric Telegraphs in India.

Head Office, August 1859.

Extracts from the Annual Report for the year commencing on the 1st of May 1858, *and ending on the 30th April* 1859.

2. In my last Report I described in detail the state of the lines and offices up to the 30th April 1858, and I reported in outline their extension and state up to the 31st October, at which date there were 7,682 miles of lines, including the reconstruction of the Indore and Agra line, and 125 offices open for correspondence.

3. Since October 1858, the following lines have been completed :—

From	To	Miles.	By whom.
Hydrabad (Scinde)	Lahore	756	Mr. Smith, Officiating Deputy Superintendent.
Kurracheo „	Hydrabad	106	
Secunderabad (Deccan) ...	Mirzapore	832	Mr. Nowill, Officiating Deputy Superintendent; Baboo Seebchunder Nundy, 1st Class Inspector.
Hooghly River, opposite Diamond Harbour ...	Midnappore and Jelasore.	126	Mr. O'Donnell, Deputy Superintendent; Mr. Munden, 2nd Class Inspector.
Bombay	Callian and Bulsar ...	158	Mr. Owen, Deputy Superintendent; Mr. Wright, 1st Class Inspector, and others.
Poona	Ahmodnuggur	75	
Vingorla	Goa	36	
Cawnpore	Calpee	50	Mr. Harrington, Officiating Deputy Superintendent; Mr. T. Browne, Assistant Deputy Superintendent; Mr Naylor, 1st Class Inspector; Mr. Walton, and others.
Allahabad	Pertabghur	160	
Lucknow	Fyzabad and Gonda		
Futtyghur	Shajehanpore	52	
Umballa	Simla	80	
Rawul Pindee	Murree	36	
	Total Miles	2,411	
	Previously open ...	7,682	
	Total now in use ...	10,123	

4. New lines are in progress from Benares to Patna, Dacca, to Chittagong, and Akyab; and branches from the East Coast line to Coconada, Coringa, Masulipatam, and Calingapatam. A

* Lines now open, 10,250 miles; Offices, 156.

second wire is to be placed immediately on the present supports between Allahabad and Benares, by which the line from Allahabad to Calcutta will be doubled.

OFFICES.

5. The following Offices have been opened since last Report:—

BENGAL CIRCLE.

Midnapore.
Contai (temporary).
Jellasore.

NORTH-WEST PROVINCES AND PUNJAUB.

Fyzabad.
Gonda.
Kussowlee.
Simla.
Murree.
Shahjehanpore.

SCINDE AND PUNJAUB.

Sukkur.
Shikarpore.
Jacobabad.
Rajunpore.
Taroosha.
Mooltan.
Kusmore.
} Completing chain of stations from Kurrachee to Lahore.

BOMBAY CIRCLE.

Bulsar.
Seroor.
Ahmednuggur.
Goa.

EAST COAST CIRCLE.

Berhampore.
Ongole.
Coconada.
Masulipatam.

CENTRAL INDIA CIRCLE.

Chanda. Chinnoor. Warungul. Nagpore. Seonee. Jubbulpore. Rewa.	Completing chain of stations from Madras and Bombay main line at Bellary to Mirzapore and Benares.

Being in all thirty new offices opened in India since October 1858, as shown in the annexed list Appendix No. 1, in which all the stations are arranged according to their geographical position. The total number of offices now open to the public is 154.

6. Late in October last the Ceylon lines were completed and joined to those of the Indian continent at Paumbun. The Government of Ceylon has been pleased to place their lines and offices under my control, as part of the Indian system, and they have adopted the Indian rates for messages, and the rules affecting their transmission.

GENERAL WORKING OF THE LINES.

7. The lines between Calcutta and Allahabad, in the North-Western Provinces, the Punjaub, Madras, Bombay, Indore, and Ceylon circles, all work satisfactorily. The East Coast line also works well from Madras to Jelasore. I write on the 11th of July, one month after the setting in of the monsoon on the West Coast, in Bombay, and Bengal. The mail steamer *Madras* arrived at Bombay yesterday with the mails from England of the 18th June. The first bulletin of public news, 140 words, was despatched from Bombay at 8.40 A. M., reached Madras, Ootacamund, and all stations on the West Coast at 10.30 A. M., Indore and Agra at 10 A. M., and Calcutta via Agra and Benares at 12.47 P. M., or in four hours and seven minutes. The commercial intelligence message and second bulletin of 440 words, were received in Calcutta at 3.25 P. M. the same day. As copies of the mail news are taken at every intermediate station, and the weather was bad on a great part of the line, the rate of progress above noted could scarcely be surpassed.

INTERRUPTIONS.

8. Total interruption or very imperfect communication exists on the following lines:—

Bombay and Bulsar.—Total interruption, doubtless caused by malconstruction of the line, and by the exceeding difficulty of travelling along it after the first fall of rain.

Rajunpore and Shikarpore, in Scinde.—Line broken, and posts swept away by sudden inundation of the Indus. I consider the Deputy Superintendent and his Inspectors free from all blame in this case.

IMPERFECT COMMUNICATION.

9. This, I regret to state, is of almost constant occurrence between Calcutta and Kedgeree, Diamond Harbour and Midnapore, and Kedgeree and Jelasore.

10. This petty section of the Bengal line, although close to Calcutta, is by far the worst worked of any in India. The value of the whole East Coast line is thus greatly diminished. As far north as Balasore, the lines and offices work well. Beyond that the telegraph is commonly distanced by the dawk.*

11. The Deputy Superintendent in Bengal, Mr. O'Donnell, attributes the failure of this section of his circle to the excessive unhealthiness of the stations and the prevalence of fever among the signallers, and he describes in earnest terms the great difficulties he has to contend with. But making all due allowance for the circumstances on which he dwells, I am constrained to say that I have proof before me of much want of foresight and precaution on the part of the Inspectors, and of gross neglect among the Assistants in charge of offices, and the Signallers on duty. I regret to add that similar mismanagement and neglect prevail among the Inspectors and Assistants on the line from Burdwan to Patna. A total change of hands will prove the best remedy for these incessant interruptions, and measures are now in progress to effect this change.

12. In Central India, the offices newly opened at Nagpore, Seonee, Jubbulpore, and Rewa, are as yet inefficient. The same remark applies to the offices between Sukkur and Mooltan in Scinde. It seldom happens, however, that newly constructed lines

* On the 20th July the *Candia* mail steamer arrived at Galle at 8 A. M. The first bulletin of mail news was despatched at 8.50 A. M., reached Madras at 10 A. M., Vizagapatam at 10.40 A. M., Cuttack at noon, Balasore at 1.47 P. M., Kedgeree at 1.52 P. M., Diamond Harbour at 2.30 P. M., Calcutta at 7.30 P. M., and was thus detained between Diamond Harbour and Calcutta, only thirty miles, for five hours,—a longer time than it took to pass between Galle and Diamond Harbour, miles 1,500. The same bulletin reached Bombay exactly at noon, being three hours and ten minutes from Galle.

and recently opened offices work well for the first season. By October next, the line from Bellary to Mirzapore, and Hydrabad to Lahore, will, I have no doubt, be in perfect working order.

EXTENSION OF THE MORSE SYSTEM OF SIGNALLING.

13. The American system of signalling has been extended, since my last Report, to the following circles and offices, as fast as instruments arrived from Berlin:—

IN BENGAL.

Diamond Harbour.
Midnapore.
Jellasore.

IN NORTH-WEST PROVINCES.

Agra.
Allyghur.
Delhi.

BOMBAY.

Bulsar.
Surat.
Baroda.
Broach.
Ahmedabad.
Deesa.

Instruments arranged and set up by Mr. St. Albin.

SCINDE.

Kurrachee.
Hydrabad.
Kotree.
Budeena.
Nuggur Parkur.

MADRAS.

Mercara.
Cannanore.
Calicut.
Cochin.

Instruments arranged and set up by Mr. Sabine.

EAST COAST.

Chicacole.
Ongole.

SOUTH-EAST COAST.

Negapatam.
Pootoocotta.
Paumbun.

14. The American instruments are now on the way to Secunderabad for the Central India line, and have also been sent to Ceylon, where Mr. Moberly is engaged in their introduction in all the Offices from Galle to Manaar inclusive.

15. Great progress has been made in the improvement of the Signallers in the new system. In many of our Offices messages are now received *by ear* as distinctly and accurately as if the instrument were speaking in our usual language. The quickness with which messages can be received in this way is astonishing.* Mr. Hills, at Mysore, can receive forty words per minute, spelt in full. In fact the practical limit to the rapidity with which messages can be transmitted auricularly is the rate at which they can be distinctly written down by the receiver, and this is ordinarily not more than twenty words per minute. This faculty of interpreting signals *by ear* is so highly valued in America, that the Signallers who excel in it receive double the salaries paid to those who read only from the indented paper tape.

16. The great extension of the lines, and the opening of twenty-eight new Morse stations since my last Report, have enabled me to provide fairly for many of the "Morse assistants from England," originally seventy-four in all. Several who have shown special aptitude for line duties have been employed as Inspectors, some have been permitted to accept Cadetships, and other appointments out of the department, on repayment of part of the sum advanced to them in England for passage and outfit. Two have returned to Europe in ill health. Of the seventy-four there now remain but twelve on the Signallers' list, and on the minimum rate of pay, and of these twelve there are some whose services may

* The most expert telegraphists are able to take down the messages in this manner by *ear*, and so correctly that there is no need for subsequent verification. It is only however the most expert telegraphists who can operate in this way. The salaries allowed to different agents vary according to the skill they attain. One who acquires the power of taking down rapidly and correctly by *ear*, will receive twice the amount allowed to him who can only take down by *eye*, the latter being always much slower than the former.—*Lardner on the Electric Telegraph, page* 68.

be dispensed with with advantage on the expiration of their three years agreement.

17. The following Memorandum shows how the class has been disposed of:—

	Monthly Salary.	No.
Appointed Deputy Superintendent on	Rs. 400	3
1st Class Inspectors	„ 250	9
2nd Class Inspectors	„ 150	18
Auditor of Accounts	„ 250	1
Assistants in Charge of Offices,	Rs. 130 to 150	20
Gone to Europe in ill health		3
Accepted other employments		4
Killed at Indore		1
Left Department without leave		1
Remain as Signallers on minimum pay of	Rs. 100	12
In Printing Department	„ 100	1*
In Charge of Workshop	„ 200	1
		74

BUSINESS OF OFFICES DURING THE YEAR.

18. The Cash receipts for all India during the year, including the portion due to Ceylon, are shown in the annexed statement:

Cash Receipts in each Month.

1858	May	Rs.	22,359	0	0
	June†	„	18,997	0	0
	July	„	15,495	0	0
	August	„	17,174	0	0
	September	„	16,506	0	0
	October‡	„	18,869	11	0
	November	„	24,158	0	0
	December	„	25,685	0	0
1859	January	„	29,892	15	0
	February	„	29,563	5	0
	March	„	31,451	10	0
	April	„	32,956	5	0

* Draws also salary as Printer to Home Office Rs. 250; total Rs. 350 per mensem.

† Line between Madras and Calcutta broke down in June, and continued useless till October.

‡ Coast line again in use, and the old line between Bombay and Agra restored.

SERVICE MESSAGES.

19. The value of messages conveyed on public service, and rated *pro forma* at the same price as private messages, is shown as follows :—

1858	May	Rs.	33,477	0	0
	June	„	29,931	0	0
	July	„	22,734	0	0
	August.....	„	24,022	0	0
	September	„	26,133	0	0
	October.....	„	35,165	5	0
	November.....	„	41,338	0	0
	December	„	37,577	4	0
1859	January	„	34,814	14	0
	February	„	30,726	14	0
	March	„	28,738	9	0
	April.....	„	21,969	6	0

20. From the 1st of May this year, the system of charging for *Service* Messages has been totally changed, in consequence of the abuses which arose from the privilege of sending such messages without payment. Every Service Message is now paid for in cash previous to despatch, and the right of priority of transmission has been abolished, except for certain special cases of indisputable emergency.

21. The effect of this change has been to reduce the Service Messages from Rupees 28,738-9 in March, and Rupees 21,969-6 in April, to Rupees 10,571-10 in May, and Rupees 6,449-14 in June, the two first months of the enforcement of cash payments. The lines have thus been cleared of a vast amount of work of little or no public value, but which caused more delay to the transmission of private messages than all other causes of interruption taken together.

NUMBER AND LENGTH OF MESSAGES SENT.

22. The total number of messages sent in all India, Pegu, and Ceylon, from the 1st May 1858 to 30th April 1859—

Private and Service, not including those sent on Telegraph business.....	157,834
Of which Private.....	101,164
Service	56,670

The length of the several messages is—

PRIVATE.

Words	1 to 16.....	Messages		55,299
,,	17 to 24.....	,,		23,220
,,	25 to 32.....	,,		14,298
,,	33 to 48.....	,,		6,099
,,	49 and upwards.	,,		2,248

SERVICE MESSAGES.

Words	1 to 16.....	Messages		4,864
,,	17 to 24.....	,,		7,828
,,	25 to 32.....	,,		10,607
,,	33 to 48.....	,,		16,876
,,	49 and upwards.	,,		16,497

23. Of the 101,164 private messages, 39,724 were sent by natives, being 39.26 per 100.

24. Of the 101,164 private messages, there were sent from

		Of which by Natives.
Bengal Stations.....	19,474	8,606
Bombay Stations.....	28,334	17,647
Madras Stations.....	18,676	4,204
N. W. Provinces and Punjaub.	13,154	2,285
East Coast.....	2,465	381
Central India.....	1,700	674
Indore Circle.....	3,543	1,866
Dacca	230	59
Pegu.....	5,438	2,398
Scinde and Punjaub	2,040	487
Ceylon	6,110	1,117

25. The cash received for *private* messages, in the year under report, is..... Rs. 2,95,511 2 9
The value of service messages, charged at same rates..... ,, 3,64,739 1 7

Total cash value of work done....Rs. 6,60,250 4 4

26. The proportion of cash receipts in the different circles is as follows :—

Bengal	Rs.	81,385	11	0
Bombay.....	,,	86,162	8	1
Madras	,,	46,465	8	3
N. W. P. and Punjaub....	,,	26,663	15	1
East Coast.....	,,	6,956	1	0
Central India.....	,,	4,381	2	6
Indore.....	,,	8,137	8	0
Dacca	,,	420	12	0
Pegu.....	,,	11,469	15	0
Scindo.....	,,	4,943	7	0
Ceylon	,,	18,524	12	0

GREAT REDUCTION IN CHARGES.

27. Early in April this year, the Government of India were pleased to sanction a very great reduction in the charges for the transmission of private messages.

28. The principle of charging by the length of lines traversed was given up, and that of the geographical distance adopted. Thus a message of sixteen words sent to Bombay via Agra, which cost four Rupees, the length of line being one thousand six hundred miles, is now charged by the distance on the map, at three rates only, or three Rupees. By this new rule, the cost of all ordinary private messages sent between Bombay and Calcutta is reduced 25 per 100.

29. Commercial and business messages, previous to the change, were charged one-half extra for *repetition*. Thus a message of sixteen words on opium or banking business cost six Rupees. It is now transmitted for three Rupees, being a reduction of 50 per 100. Messages in numerical cypher, formerly charged at triple rate, besides half extra for repetition, are now reduced to the ordinary tariff. Thus a cypher message of sixteen figures, each charged as a word, which between Bombay and Calcutta cost eighteen Rupees, is now sent for four Rupees and eight Annas only, including one-half extra for repetition.

30. The charge for Messenger hire on delivery of messages has been reduced from four Annas (six Pence) to two Annas per mile.

31. A most important change has been sanctioned in the

mode of charging for the number of words. Up to April last, the rates for words sent four hundred miles or under were for

16 words.....	Rs.	1	0	0
17 to 24 „	„	1	8	0
25 to 32 „	„	2	0	0
33 to 48 „	„	3	0	0
49 to 64 „	„	4	0	0

so that a single word above the limit of the group caused an entire additional *rate* to be charged. Thus, for thirty-two words from Calcutta to Benares, the charge was *two* Rupees, for thirty-three words *three* Rupees.

32. This system caused great inconvenience to the public and the department. Every effort was made to cramp a message within the fewest possible words by the omission of auxiliary verbs, conjunctions, &c., the effect of which was in many cases to obscure the sense of the despatch so as to render it unintelligible to the recipient. Besides this, all experience shows that while a message couched in ordinary terms passes over thousands of miles free from transit errors, one in enigmatical and obscure terms becomes "confusion worse confounded" at every repeating station, and generally reaches its destination in a totally unintelligible state.

33. The mode of charging is now changed to *one anna for each word above sixteen for four hundred miles.* Thus a common message of thirty-three words from Calcutta to Bombay, formerly charged twelve Rupees, is now sent for six Rupees and three Annas, the three Annas being for one word above thirty-two sent over three distances each of four hundred miles.

34. Further, in the *address*, permission has been granted by Government for the free transmission of all ordinary *prefix* designations, civil or military, such as Lord, Sir, Baboo, Nawaub, Colonel, General, &c., but *affix* titles are still charged, to prevent the occupation of the line by the long string of official and complimentary designations so commonly used in this country, especially among native correspondents.

35. The effect to the public of these numerous changes and reductions has been to render the Indian Telegraph Tariff in a very large degree the cheapest in any country.

	Miles.	Costs. £	s.	d.	Rs.	a.
A message of 25 words sent in England for a distance beyond	150	0	4	0 =	2	0
From London to Marseilles..	815	1	5	6 =	12	12
Distances by the Line. „ London to Vienna....	1206	0	19	6 =	9	12
„ London to Trieste....	1526	0	19	6 =	9	12
„ London to St. Petersburgh	1877	1	13	6 =	16	12
„ London to Constantinople	2181	1	19	6 =	19	12
New York to New Orleans..	2000	0	18	9 =	9	6

While the same number of words sent from	Miles.	Costs.
Calcutta to Benares	400	Rs. 1 9
Calcutta to Agra	800	„ 3 2
Calcutta to Madras	925	„ 4 11
Calcutta to Bombay (1,600 miles by the line, but charged by the map as 1,200 only) same as London to Vienna	1,200	„ 4 11
Galle to Kurrachee (by the line over 2,000 miles)	1,650	„ 7 13
Galle to Peshawur (by the line over 2,600 miles)	2,100	„ 9 6

36. The change of rates came into operation about the middle of April, and we have now had two clear months' experience of the results as regards the amount of cash collections, and the influence of the change on the number of messages. The receipts in March were (former charges) .....Rs. 31,451 10
April (half the month reduced rates).. „ 32,956 5
May (reduced rates for entire month) „ 31,943 1
showing clearly that the reduction had caused no financial loss; the difference being made up by increase of the number of messages transmitted. Several interesting facts, illustrative of this effect have been communicated by the Deputy Superintendents of Circles, of whose reports a brief analysis is subjoined.

37. Mr. O'Donnell, Deputy Superintendent of Bengal, states that previous to the reduction of charges the average number of paid messages sent from Calcutta in each month was 1,158, average value Rupees 4,611.

During the last two months, since the reduction, average number of messages 1,933, average value Rupees 4,590, increase in number being over 66 per 100.

Repetition at half price extra was compulsory up to April, after that optional. Accordingly Mr. O'Donnell reports that for twelve months before the new rule, the average number of private messages paid for at repetition price was 442; last two months 537; showing an increase of nearly one-fourth.

38. As regards *service* messages, Mr. O'Donnell reports that under the rule of free transmission, the monthly average number was 274; since cash payment has been enforced, 179.

39. Mr. O'Donnell lastly states that the number of "Depositors' Messages," paid for at other stations, has greatly increased since the introduction of the new rules. Nearly half the commercial messages sent from Calcutta are "bearing," and not included in the above return.

40. From Bombay Mr. Walton reports—"The new rules have caused a considerable increase in private and mercantile messages, and although the prices are reduced, the receipts have increased very much. The service messages are reduced in number about 80 per 100, and those now sent are concise and short. Any further reduction in prices would cause the lines in this Presidency to be constantly choked. The number of *repetition* messages has decreased about one-half."

41. From Madras Mr. Blissett reports that the number of messages has increased 20 per 100, and the cash receipts fallen about 11 per 100, and the *repetition* messages are one-half less numerous than before.

The service messages have decreased over 50 per 100 in number, and 66 per 100 in length.

42. From the Indore circle Mr. Todhunter reports that the effect of the new rules has been to increase the number of private messages by one-third, and that service messages have been reduced in number and in length to one-sixth.

Reports to the same effect have been received from the Dacca circle from Captain McGrath; from Central India from Mr. Nowill; from the North-West Provinces and Punjaub from Mr. Harrington; and from Scinde from Mr. Smith.

43. The evidence is accordingly conclusive that the objects proposed by Government in the reductions and alterations described, are being rapidly and successfully accomplished, and that

an important benefit has been conferred on the public. I entertain confident hopes that the business and usefulness of the department will be largely increased through these changes.

ERRORS AND COMPLAINTS.

44. The chief improvement remaining to be accomplished in the working of the offices, is the reduction of the proportion of "errors." Towards this object our best exertions are now applied. The hurry of construction and reconstruction being now over, and many highly respectable and competent Assistants set free from the lines to devote their time to office supervision, a short time will bring about a great increase of accuracy.

CAUSES OF ERRORS.

45. As the American instruments are now in use on all the great lines, there is no longer any ground for supposing imperfect or faulty instruments to be the chief cause of errors.

46. This is to be traced in almost all cases to inexperience or neglect on the part of the signallers, and still greater neglect on that of the Assistants in charge of offices, in allowing obviously incorrect messages to be sent out without their supervision or correction.

47. The inexperience of many of the signallers is a drawback to our successful operations, due to the rapid and enormous extension of our lines and increase of offices, beyond the rate at which well-trained signallers could be provided. For one hundred and fifty-four offices now open, there should be at the very least eight hundred thoroughly practised signallers. We have not as yet half that number. Six months' constant practice is necessary to render a signaller perfectly competent for his duties.

48. It has commonly happened, too, that messages which had been received with perfect accuracy have been made over to ignorant copying clerks, the copies sent out without examination, and subsequently found to be full of errors. The employment of copying clerks in the message department has accordingly been prohibited in all the offices, and orders given that each message shall be sent out in the handwriting of the signaller by whom it was received, and under the signature of the Assistant in charge. When these directions are faithfully carried out, the cause of errors now under consideration is at once remedied.

49. The general detection of errors rests chiefly with the local

examiners in each office circle, and the final examination of the files of copies of all messages sent in to the Chief Superintendent's office by every station in India and Ceylon. In the local examiner's office, every message received in, or passing through the circle, is tracked and compared. In the general examiner's office, every case of *complaint* is investigated by tracking the message through all the circles. The results are interesting. The errors in the actual signalling are in nearly all cases committed by the *receiver*, not by the sender. Nearly all are phonetic, words of similar sound being taken without reference to sense. More than 90 per 100 of the errors are numerical, although we never allow figures to be telegraphed as such, but every sum is expressed in words as in a cheque. Names of persons and places are next in order in the proportionate number of errors, and this happens in Europe and America just as commonly as in India. We now take the precaution of signalling every name twice, and having it repeated back by the receiver once, and we are thus rapidly diminishing the number of these mistakes. It sometimes happens, however, that through the gross ignorance or carelessness of an Assistant, ludicrous errors are perpetrated, which any one of common sense or education could have prevented. In a late issue of mail news from the Calcutta office, we were told that the Franco-Piedmontese army had defeated the Austrians at *Versailles* (instead of *Varese)*; and last year the Bangalore office informed the public that the Government of India was to be transferred from the East India Company to *Brown!*

50. But notwithstanding the causes of error above adverted to, the actual proportion of erroneous words in the total number of words transmitted is extraordinarily small. I insert in the Appendix an abstract of the tabular returns of inaccuracies received from the Bengal examiner for the year now under report, and one of the *full* returns as a specimen of the manner in which this plan is carried out. The abstract return shows for the year:

Messages sent	22,657
Messages in which errors occurred..	492—2.17 per 100
Total number of words in all messages.....	525,617
Total number of erroneous words..	689
Proportion of errors	0.131

or one error in every seven hundred and sixty-two words, a result of which Mr. O'Donnell may well be proud, and affording clear

proof of what can and will be done in other circles within a reasonable time.

51. The Bengal examiner's returns are the most complete and trustworthy of any I receive. It will be observed that they refer only to the business transacted in the Bengal circle.

52. The results in the Madras and Bombay circles are somewhat inferior, are less accurately tabulated, and are much in arrears. In the North-West Provinces, till within the last three months, the errors have been very discreditable in number and nature; on the new lines worst of all. But this was to be expected.

53. To test the whole system collectively, if the messages for one entire day for all the offices in India be examined in detail, the result is better than could be fairly hoped for, all the circumstances concerned. This is illustrated by an occurrence which took place in the Calcutta office on the 8th of November last. On that day, a stupid copying clerk in that office sent to the Secretary of Government a MS. copy of "Mail News" full of absurd blunders. The Secretary naturally attributed this to the telegraph itself, concluded that the messages all over India were of the same faulty character, and expressed his opinion accordingly in very strong terms of censure. It was found, however, on reference to the daily files of all the messages *received* in India on that day, that there were 5,997 words transmitted, of which 12 only were erroneous, mis-spelt, or doubtful, being 1 erroneous word in 499. The original transcripts of all the messages in question, as received from each office, with the signature of the receiving signaller, were submitted to Government for verification. The result enabled me to state with perfect confidence that no lines in existence of equal extent could exhibit a smaller proportion of errors, or a greater degree of accuracy in all ordinary work.

SCHOOL OF SIGNALLERS AT COONOOR.

54. In connection with the subject thus noticed, I should allude to the School of Signallers recently opened under the sanction of Government at Coonoor on the Neilgherries.

55. Lads of European or East Indian parentage are received in this school between their fourteenth and sixteenth years, on passing a strict examination in spelling from dictation. They enter as Probationers on thirty Rupees per mensem, from which the cost of their board and washing is deducted. They reside on

the premises, and are taught signalling by Mr. Knop, an experienced Assistant, a man of mature age and most assiduous and successful in the discharge of his duties. Mr. Knop attends to the diet and dormitory, washing, &c.

56. In the Coonoor school, Mr. Knop *commences* by the *oral* method; after that is mastered, reading by the indented paper tape is learned in a single lesson. Those who cannot receive moderately well by *ear* after two months' training, are removed from the department.

57. A branch line of telegraph has been erected on slight temporary supports from Coonoor to Ootacamund,* and a Morse instrument provided at each end. On these instruments the pupils practice constantly. When reported fit for the service by Mr. Knop, they undergo examination, and are placed on duty on fifty Rupees per mensem in the Ootacamund office. Here they learn all the detail of office business, such as charges for messages, rates for distances, the rules for repetition, precautions against errors, &c.

58. After two months' duty at Ootacamund, which is a terminal or single instrument station, they proceed to Bangalore, a triple station, where a vast amount of transit business is transacted, and where a great workshop has been established for supplying all Southern and Central India, Ceylon, and Bombay, with spare relays, batteries, lightning protectors, &c., and for the repair of all instruments. At this workshop the young signallers are taught the adjustment, cleaning, and ordinary repairs of their instruments, &c.

59. After two months thus spent at Bangalore, they are sent on duty wherever their services are required. They are bound by indenture to serve for five years, and their progress and promotion in the department depend altogether on their own exertions and steadiness.

60. The Coonoor school has been established but three months, and is now just beginning to send out its first pupils. I have visited the class frequently, and I am happy to report most favorably on the zeal and assiduity with which Mr. Knop per-

* A European Artificer has been placed in charge of this temporary line, which leads over a mountainous country, and presents every variety of span and curve. Under his instruction, the lads are taught how to erect posts, strain wire, cast ingot joints, and make themselves thoroughly familiar with all *line* duties.

forms his duties. I am taking measures to supply him with probationers in regular monthly batches, and I shall arrange so that he will be enabled to supply the lines every month with at least six signallers perfectly proficient in signalling by sound.

61. The cost of the school has added but 140 Rupees* to the monthly charges of the establishment generally, as Mr. Knop continues in charge of the Ootacamund office on his regular salary of 150 Rupees per mensem, and the European artificer is on the general establishment, and merely detached on this duty, and the allowance for the probationers is what they would otherwise draw if employed as heretofore in the various offices along the line.

62. On the whole, I am of opinion that the Coonoor school promises to become one of the most useful and important branches of this department. Its extension and improvement seem to me to deserve every encouragement.

THE WORKSHOP FOR SOUTHERN INDIA AND CEYLON.

63. This workshop is now in full operation, and proves of great value. It supplies all articles indented for from Bombay, Central India, the East Coast, Madras, and Ceylon, about 75 offices and 5,000 miles of line. The workshop is under the ultimate control of Mr. Blissett, the Deputy Superintendent of Madras, a most accomplished mechanist and artist, and is at present under the direct management of Mr. William Biddulph, one of the Morse assistants from England, who has shown a special turn for this branch of our business, and is most indefatigable in keeping the large native establishment constantly employed, while he tests, by scientific means, all the instruments they turn out.

HORSE PATROL.

64. Experience having shown that in the Madras, Bombay, and Guzerat divisions, the ordinary means of transit in the country could not be depended upon to enable an Inspector or Artificer to travel rapidly along his section in case of interruption, and the native line guards who were retained, one for every five miles, having proved totally useless in preventing interruptions or restoring communication, I have dismissed the whole of the line

* House Rent of Coonoor premises..... Rs. 80
Peons ..... ,, 10
Extra allowance to Mr. Knop..... ,, 50
Total...Rs. 140

guards, and established a mounted patrol, whose services are already proving of the utmost value.

65. In Madras and Mysore, the patrols are Europeans or East Indians, young active fellows, mounted on stout ponies. Each man is entrusted with twenty-five miles of line, in the centre of which he resides in a hut built for him at the public cost, at an average expense of 100 Rupees. He patrols his section twice in each week from end to end on fixed days. In case of an interruption on any other day, a mounted Inspector starts at once from the station at each end of the line, rides at full speed to the hut of the nearest mounted patrol, and starts him along the line to the next post, and so on. Each patrol carries a coil of light wire, block and tackle, a small coil of rope, bellows, zinc, and lead, for casting joints, in all weighing 48 lbs., packed in two saddle bags. He is thus able to make a permanent joint at once wherever the line is broken. The men are known personally to all the native police authorities and head men along the roads, and receive prompt and willing aid from them on all occasions in supplying such labor and material as may be required in cases of emergency. The pay of each mounted patrol is Rupees 25, with keep of horse Rupees 15.

66. In Bombay native artificers (muccadums) are employed on this duty, and with remarkable success.

67. My special thanks are due to Mr. Straughan, Acting 2nd Class Inspector at Bangalore, for the success with which he organised this system. He selected the ponies, taught the men their duties, supplied the tools, planned the huts, told off the patrols to their duties, and did the whole without bustle or trouble to any one in less than four months from the time he received his instructions.

68. The plan has proved so successful in preventing line interruptions, and in restoring communication rapidly, that I hope to introduce it next season in every circle in which horse or camel transit is available. Along the East Coast, in the Dacca and Pegu circles, it is only *by boat* the lines can be patrolled or reached at all in the rainy season.

TIME BALLS.

69. Since my last report, Electric Time Balls for showing true time to the shipping have been erected in Calcutta by Mr. Crible, in Madras by Mr. Blissett, and in Bombay by Mr. Owen,

in connexion with the Observatories at these cities. The balls and the electric mechanism for their discharge were manufactured in England under my own personal direction.

70. In Calcutta there was a great deal of bungling and mismanagement in the erection of the apparatus, until Mr. Crible, of the telegraph workshop, took it in hand. In Madras and Bombay, Mr. Blissett and Mr. Owen have been perfectly successful, and the reports from the Observatories show that their arrangements have proved of great benefit to the shipping at those ports.

PREVENTION OF ACCIDENTS BY LIGHTNING.

71. I have peculiar pleasure in reporting the entire success of the measures I have adopted, since my return to India, for the prevention of accidents by lightning, especially as regards the valuable Morse instruments now in use in most of our offices.

72. Previous to the introduction of these instruments, my only object was to protect the signallers and the buildings from serious injury, and in this our arrangements were perfectly sufficient. The lightning plates in every instance carried the most violent discharges to the earth, there only passing to the instrument table a fraction of the discharge sufficient to burn a fine wire and give a disagreeable shock.

73. So long as we used the little coil instrument which has done so much work in our offices, we allowed the lightning to expend them without economy. It was little more trouble to replace a coil than to mend a pen or cut a pencil, and the value was not worth a thought. But now a Morse instrument costs 300 Rupees, and not one spare instrument is yet in store. A lightning spark reaching the relay burns the fine wire and disables the instrument altogether, and thus paralyses the work of the whole line. This happened frequently last year, and caused a great number of prolonged interruptions.

74. This year, by a very simple expedient, the instruments have been saved without a single exception. A coil of twenty yards of very fine wire is placed between the lightning plates and the signalling currents, and as the fraction of the lightning flash adverted to in para. 72 passes through this coil, any spark strong enough to injure the instrument meets its first resistance in the safety coil, burns this, and passes through the lightning plates to the earth.

75. Reports have reached me from nearly every office of the

invaluable effects of these safety coils during this season. The Indian end of the Manaar cable was saved by their use. In the Bangalore office five coils were burned in a single thunder-storm, thereby saving five instruments. In the Ootacamund office thirteen explosions occurred in two hours, and as many coils were expended, without damage to the instruments or harm to the signallers.

76. In addition to these safety coils and the lightning plates formerly and still in use, I have had brass plates, of the shape and size shown in the margin, attached to the line and earth wires, where the line enters the offices. The upper plate is part of the line, the lower plate is in contact with the earth by a thick copper rope. A circular hole between both can be closed by a metal stopper having an ivory handle. The signaller is by this contrivance enabled to change the coil when burned without any danger to himself. He places the stopper in the hole, thus connecting the line with the earth, and then he changes the coil. Without this precaution, it is exceedingly dangerous to touch the burned safety coil during a thunder-storm.

Drawing sent with original report.

77. The value of this precaution was well illustrated in the Ootacamund office on Sunday the 1st of May. During a very violent thunder-storm the safety coil was burned. Mr. William Biddulph, one of the Morse assistants, proceeded to replace it by a fresh coil, having first inserted the stopper between the plates. When the new coil was ready, he was in the act of withdrawing the stopper, when a terrific flash of lightning struck the line outside, entered the office, melted the brass plates, and passed in an almost blinding explosion within two inches of his hand, without doing him the slightest harm, or injuring the Morse instrument, at which a signaller was seated. I was writing in an adjacent room at the moment, and the explosion was as loud as that of a heavy gun in a casemated battery, or between the decks of a ship.

78. It is worthy of record that a second line of wire, erected for experimental purposes on the same posts for about a mile from the Ootacamund office, led to an instrument of much value used for measuring deviations of currents, leaking as it were from the main line during rain. This second line received its share of the flash, conveyed it to the experimental instrument, in which it exploded with a furious discharge, the instrument being entirely destroyed. I had neglected to provide it with a safety coil, and

thus obtained expensive and disagreeable proof of the value of this contrivance.

PRESENT STATE OF ESTABLISHMENT.

79. In my last Annual Report, it is shown at page 24, para. 90, that the total monthly cost of the working establishment then entertained was Rupees 63,427 ; and the amount of monthly "working" *contingencies*, such as house rent, battery stores, special travelling, oil, stationery, and sundries, was estimated at Rupees 17,816—total, Rupees 81,233 per month, for 7,155 miles of line, and 125 offices then open and in use.*

80. Since last report, the lines from Kurrachee to Lahore, and Hyderabad in the Deccan to Mirzapore, also those from Pondicherry to Ceylon, Calicut to Cochin, and Poona to Ahmednuggur, have been completed, and the offices named in para. 5 opened for correspondence—in all about 3,000 miles of line and 28 offices. The construction establishments employed and still retained on those lines still constitute a very heavy item of expense not properly falling under the head of *working* establishment. Nevertheless, construction and working included, the cost of the whole establishments now entertained, and all office contingencies, amounts to Rupees 85,819, of which the annexed abstract shows the heads of expenditure:—

11	Deputy Superintendents.....	Rs.	4,100
1	Assistant Deputy Superintendent...	„	350
18	1st Class Inspectors at 250.....	„	4,500
28	2nd Class Inspectors at 150.....	„	4,200
37	3rd Class Inspectors at 100.....	„	3,700
125	Assistants in charge of Offices.....	„	11,532
336	Expert Signallers†.....	„	15,609
103	Probationers	„	2,782
113	European Artificers‡.....	„	6,812
22	Native Artificers.....	„	770
1027	Line and Cable Guards.....	„	7,099
859	Servants and Peons	„	5,053
175	Accountants and Clerks.....	„	5,383

* By an error of the printer's, the lines were stated at 10,700 miles, offices 150. I may observe that I had no opportunity for correcting the proofs, and that many errors have accordingly occurred in that report.

† Average salary 46 Rupees each.

‡ Average allowance 61 Rupees.

Auditor, Printer, Acting Inspector of Timber, Bombay, Assistant Teachers Bombay and Coonoor, Sundries	Rs.	750
House Rent	„	3,679
General Superintendence	„	3,000
Workshops, Calcutta and Bangalore ...	„	1,500
Office Sundries, Oil, Stationery, Sulphate of Copper, Zinc Plates, estimated at..	„	5,000
Total for all India..	Rs.	85,819

81. Now, taking Rupees 35,000 per mensem as the average cash receipts for private messages during the current year, and 5,000 Rupees as the minimum cash receipts for service messages, total 40,000 Rupees, there will be an excess of expenditure of Rupees 45,819 monthly.

82. There are two sources from which this excess of expenditure will be much reduced within a reasonable time.

83. The business of the lines and offices will assuredly increase very largely from the commencement of next fine season, under the influence of the restoration of public tranquillity, the revival of commerce, the daily improvement in the speed and accuracy of our work, the confidence of the public in the secrecy observed in every office, and under the encouragement afforded by the extraordinary cheapness of our rates.

84. Again, for every section of line brought into a thoroughly permanent state by the erection of iron, granite, or iron-wood supports, numerous inspectors, artificers, line guards, and other temporary establishments may be discharged. I am certain that a diminution of Rupees 20,000 per month can be accomplished by these reductions, without impairing the efficiency of offices or lines. This can be effected within two years at farthest, should the measures which I shall submit for this purpose receive the approval of Government. By that time, and by the measures referred to, I have full confidence that our lines and offices will pay their entire charges, except the wear and tear of the lines where wooden standards are used.

85. On this subject I have to observe that the reports I have received from the Deputy Superintendents, respecting the supports, show that the iron posts used in Scinde, on the East Coast, and in Bengal, are thoroughly successful in every point of view. The same is reported of the granite slabs in Mysore. Masonry pillars

are universally condemned. Those erected at an enormous cost in Central India during my absence in Europe, are now, in little more than two years, falling to pieces by scores. The incessant vibration of the wire, independent of any lateral strain, disintegrates the cement, and rain and wind complete the ruin. All this was pointed out in the report I submitted before I left India, but my opinions were perhaps overlooked, and the result is that we are now daily compelled to put up common jungle timber to replace the masonry pillars falling down between Secunderabad and Nagpore.

86. Of *wooden* posts, there are but two kinds which should ever be employed: the red iron-wood of Arracan, and the grey iron-wood of Ceylon, *Mesua Ferrea*. Of the former the supply is limited. The *Mesua* is procurable in large quantities at Jaffna.

87. I have now the gratification of reporting to the Government of India the names of the officers of this department who have distinguished themselves during the year by any special service.

88. In my report dated the 31st of October, I described the remarkable services rendered by Mr. Todhunter in the reconstruction of the line from Agra to Indore, and the very successful feat accomplished by Mr. Wickham in placing the telegraph cable across the Gulf of Manaar, without steam, and with the aid of a native crew.

89. Mr. Bailey has not only completed the lines in Ceylon, but altered, strengthened, and secured those from Paumbun to Negapatam. He manages his lines and offices with remarkable ability and perfect success. He is now very ably seconded by Mr. Moberly, who is employed in establishing the Morse instruments and system in all the offices in Ceylon.

90. Mr. Smith, Officiating Deputy Superintendent in Scinde, has completed the lines from Hydrabad to Lahore with a degree of energy and skill which has never been surpassed in this department.

91. Mr. Mayes has reconstructed and strengthened the line from Madras to Balasore, and is entitled to my cordial acknowledgment for his indefatigable exertions. The 1st Class Inspectors on that line, Mr. Bence and Mr. Cappel, also deserve great praise for the manner in which they have performed all the duties I entrusted to them.

92. Mr. Nowill, Officiating Deputy Superintendent in Cen-

tral India, and Baboo Seeb Chunder Nundy, have completed the line from Hyderabad to Nagpore with considerable speed, and deserve creditable mention. The Assistant in charge at Hyderabad, Mr. Babington, deserves special notice for the manner in which his duties are conducted.

93. Mr. O'Donnell, Deputy Superintendent in Bengal, and Mr. F. G. Peale, Officiating 1st Class Inspector, have succeeded well in restoring the lines and offices from Agra to Allahabad to a state of fair efficiency from the total disorganisation and confusion into which they had fallen at the commencement of this year. Mr. O'Donnell reports that Mr. McGregor, the Assistant in charge of the Calcutta office, is remarkable for the assiduity and intelligence with which he manages the chief office in India, and the one in which the heaviest business is transacted.

94. Mr. Owen, Officiating Deputy Superintendent in Bombay, deserves great praise for the efficient manner in which he has managed his circle and offices, which are now the most actively employed, and the most remunerative in India. He is ably seconded by Mr. H. I. Walton, the Inspector in charge at Bombay, whose assiduity, skill, and vigilance, in the discharge of all his duties, afford a good example to the whole department. I have also to mention with cordial approbation the services rendered by Mr. M. K. Man in securing the stability of the lines in Guzerat under circumstances of much difficulty and urgency. Mr. St. Albin has also rendered excellent service in this circle by the skill and success with which he has established the Morse system and instruments in all the stations from Surat to Deesa inclusive.

95. In Madras Mr. Blissett gives great satisfaction, and I am happy to bear testimony to the excellent working of his whole circle. He reports in terms of great approbation on the good service rendered by Mr. Sabine, in the perfectly successful introduction of the Morse system and instruments, and training of the signallers in the offices of Mercara, Cannanore, Calicut, and Cochin, a duty he had previously performed with equal success in the offices at Sattara, Dharwar, and Gudduck, in the Bombay Presidency. Mr. Sabine has thus the merit of having established a greater number of Morse offices than any other of the Assistants sent for this purpose to India.

96. In the North-West Provinces, much credit is due to Mr. Harrington, Officiating Deputy Superintendent, Mr. Brown, As-

sistant Deputy Superintendent, Mr. Naylor, and Mr. Walton, for the great rapidity with which they constructed flying lines from Umballa to Simla, and Rawul Pindee to Murree.

97. I have lastly to express my acknowledgments to Mr. Galbraith, the Auditor of Accounts, for the skill and close application with which he manages his department.

98. I have only to add that the new lines sanctioned between Dacca and Akyab, Benares and Patna, Burdwan and Patna, and the branch lines on the East Coast, are all in good progress, and will doubtless be completed and rendered available for public use before the end of this official year.*

(Signed) W. B. O'SHAUGHNESSY,
Superintendent Electric Telegraphs in India.

Head Office, 24th July 1859.

* Line from Bezwarrah to Coconada finished, and office opened; line from Dowleishawaram to Masulipatam also finished this day, 1st August 1859.

APPENDIX B.

MAIL COMMUNICATIONS.

No. 2380 OF 1858.

GENERAL DEPARTMENT.

To THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—In transmitting to you the annexed copy of a letter from the Post Master General, No. 2039, dated the 7th September 1858, and of its accompaniment, I am directed to enquire whether the scheme therein suggested would be of any convenience to the trade of this Port.—I have the honor to be, Sir, &c.,

(Signed) H. YOUNG,
Chief Secretary to Government.

Bombay Castle, 29th September 1858.

(Copies.)

No. 2039 OF 1858.

From E. IMPEY, Esq.,
Post Master General,
To WILLIAM HART, Esq.,
Secretary to Government, Bombay.

SIR,—I have the honor to submit, for the information of Government, copy of a scheme suggested by me to the Director General of the Post Office in India, and the Home Post Office, on the subject of the alteration of the days of departure of the outward English steamers for Bombay.

2. By making the dates for the Bombay vessels the 11th and 27th, and for the Calcutta vessels the 3rd and 18th, both Presidencies would be benefitted, without, I believe, detriment to either, and Bombay would have the advantage of replying immediately, that is, within four days, to *Home* letters.

3. By the plan suggested, two mails can (if desirable) be sent to us by Galle, and they would arrive here a day or two be-

fore the direct mails. The steamers from Calcutta, Bombay, China, and England, would also touch at Galle at the same dates, and interchange communications for those places, benefitting passengers at the same time.

4. The London Post Office are prepared, it should be observed, to acquiesce in the scheme should it meet with the concurrence of the Director General.—I have the honor to be, &c.,

(Signed) E. IMPEY,
Post Master General.

Bombay, Post Master General's Office, 7th Sept. 1858.

No. 440 OF 1858.

To WILLIAM GREY, Esq.,
Officiating Director General of the Post Office in India.

SIR,—On the introduction of the present mail arrangements with England, I addressed the Secretary to the London Post Office, with the object of showing how injuriously this Presidency was effected thereby, at the same time suggesting a plan which I thought would obviate it without detriment to the interests of other Presidencies. After some references and explanations, Mr. Hill writes that the changes proposed in the days for the mails to leave London, Bombay, and Calcutta respectively, involve considerable alteration in the existing arrangements; and although Her Majesty's Post Master General, as far as he understands it, is not prepared to offer any objection to the scheme, he considers, before entering on a thorough investigation of its merits, he should be assured that it meets with your approval, and be forwarded with your observations to Lord Colchester. I consequently submit for your consideration the scheme as detailed by me to Mr. Hill.

2. Galle, as the point of meeting, is the main object to be guided by. The Calcutta and China mails reach there about the 31st and 17th (those for England being four days later). If the departure of the English mails can be so timed as to reach it on nearly the same dates, so as to enable the China steamers to bring the mails to Bombay in time for the departure of the outward steamers of the 9th and 24th, Bombay would have four mails per month, and the least disturbance of ex-

isting periods would be created, since the departure of the Calcutta and Bombay mails would be either the same as now or anteceded a few days.

3. The basis of the calculation to be taken is the time of transit between the different ports, which, according to the London Time Table, is as follows :—

England	to Bombay	25	days.
Do.	do. viâ Galle....	33	,,
Do.	to Galle	27	,,
Calcutta	do.	7	,,
China	do.	16	,,
Bombay	do.	6	,,

The first necessary transposition would be the substitution of the 9th and 25th as the days of *departure* of the English mails for *Bombay* instead of for Calcutta; it would enable replies to be sent back, both from Bombay and Calcutta, by the return steamer, in from one day to three.

Departure.	From England.	Time of Transit.	Reaches Bombay on	In time for the out-going mail of	Reaches Calcutta by land on	In time for mail by Bombay.	Remarks.
From England to Bombay.	9	25 days.	4	9	12	16	
	25	Do.	20	24	28	1	

This would bear further transposal of two days in *advance*, which is essential to the scheme :—

Departure.	From England.	Time of Transit.	Reaches Bombay on	In time for the out-going mail of	Reaches Calcutta by land on	In time for mail by Bombay.	Remarks.
From England to Bombay.	11	25 days.	6	9	14	16	
	27	Do.	22	24	30	1	

The altération of the mails for Calcutta involved by the foregoing would be—

Departure.	From England	26 days transit to Galle.	Arrival at Galle.	Arrival at Bombay	In time for Mail of	Arrival at Calcutta	In time for Mail of	Or	Remarks.
From England to Calcutta.	8		29	4	9	6	7	16	
	18		14	20	24	21	22	1	

The mails of the 3rd and 18th from England would thus reach Bombay before those of the 11th and 27th, and both would be in time for the out-going mail of 9th and 24th, and the same in Calcutta, though the time would be somewhat shorter. It would, however, be lengthened by the quick passages which are anticipated. It would necessitate the antedating of the Calcutta and China mails by two days.

Outward Mails.

Departure from Calcutta	7th	instead of	10th,	as at present.	
Do.	do. 22nd	do.	24th	„	„
Do.	China 29th	do.	1st	„	„
Do.	do. 13th	do.	16th	„	„
Do.	Bombay 9th	do.	16th	„	„
Do.	do. 24th	do.	16th	„	„

So as to reach Galle simultaneously with the English steamers on the 14th and 29th.

4. The principle adopted is in giving the *long* intervals to the Bombay departures from England, and advancing the latter two days. The advantage gained will be the receipt in Bombay and in Calcutta of mails in time for reply by the following steamer, saving a period of fourteen days to the first, and benefitting the communications generally. The same between Bombay and China, as the steamers would reach on the 6th and 21st, and depart on the 9th and 24th. It would enable also two mails to arrive in Bombay intermediately, and relieve the land lines to some extent, though not as much as might be wished, and would afford, by the meeting at Galle of the China, Calcutta, and English steamers, direct communication with all those places, and facilities to passengers from Bombay, who are now confined to two steamers. No disadvantage would occur to Calcutta, as may be observed from the following statement. Replies now are enabled to be made as follows:—

	Received by land from Bombay.	Replied by Sea.
Calcutta	19th	24th
Do.	5th	10th
	Received direct by Sea.	
Do.	14th	16th by Bombay.
Do.	30th	1st

If the proposed plan is carried out, the arrangement would be—

	Received from Bombay by land.	Replied to.
Calcutta	14th	16th
Do.	30th	1st by Bombay.
	By Sea.	
Do.	6th	7th by Sea.
Do.	21st	22nd

5. The object of the above plan, as presented to the London Office, was to afford Bombay a weekly mail with England, which I conceive might be done *viâ* Galle, by making an alteration in the days of starting of the English mails for Calcutta and Bombay, by which Calcutta would not suffer that I can perceive. It is essential to the scheme that the China mails should meet those from England at Galle, and as a consequence that the Calcutta mails should arrive at the same time as the latter, the additional advantage being gained of mails from four or five separate parts of the world being exchanged there, viz., England, Bombay, Calcutta, China, and perhaps Australia.

6. The rapid passages now being made (if they can be calculated upon) will only affect the scheme in causing the departures from Calcutta and China to be a day or two earlier; the arrivals being also advanced, no material alteration will occur.

7. A great source of complaint and dissatisfaction would be removed by the plan, viz., the inability of the Bombay public, and stations close by, at present to reply to English letters rapidly. The English mails have hitherto arrived some few days after the departure of the homeward steamers, and they will probably now arrive about the actual day of departure.

8. A further advantage by the Galle route would be that a portion of the Bombay mails would arrive some days before the direct overland mail, and would relieve the public from the grievance now felt of receiving fortnightly papers and intelligence at the same time, and of not receiving the last portion of the overland mails for so long a time. The steamer which arrives with the Marseilles mails of 17th, brings also those of 9th and 12th from England, the second those of 26th.

9. Some allowance will require to be made in consequence of

the rapidity of the steamers *at present*. I have therefore drawn up two tables in which the requisite *amendments* are made :—

Departure.	Leaving England	No. of days in transit Extent of 25 days.	Arrival in Bombay	In time for reply by outgoing mail of	Arrival in Calcutta Over-land.	In time for reply Overland by Bombay.	Or	Remarks.
From England to Bombay.	11	23 instead of 25	4	9	12	16	21	By Sea.
	27		20	24	28	1	6	
From England to Bombay.	3	To Galle 24 instead of 26, 27	2	9	By Sea. 4	6		
	18	12	18	24	19	21		

Table of Arrival and Departure.

From	To	Date.	Arrival.	Departure.	Remarks.
England	Bombay	11	4	9	Calcutta Mails of dates for 16th and 1st can be sent Overland by Bombay.
		27	20	24	
Ditto	Calcutta	3	4	6	
		18	19	21	
China	Galle	26	12		
		11	27		
Calcutta	Ditto	6	12		
		21	27		
Bombay	Ditto	7	12		
		20	27		

Some alteration for this side of India is much needed, and I have taken some pains to reconcile the requirements here, without infringing, but with the endeavour of improving those of Calcutta, and giving general satisfaction. The actual effect of the change will be, that Calcutta despatches will be—

Outward on the	6th or	7th instead of	10th
Do.	21st or	22nd do.	24th
Inward on the	4th	do.	14th
	By Sea.		
Do.	19th	do.	30th
By land on the	12th	do.	19th
Do.	28th	do.	5th

or rather an interchange would occur, that is the land route days would take the place of those by sea, and vice versa.

10. I trust you will be able to give your concurrence, appro-

val, and recommendation to the above, or some modification of it. —I am, &c.,

(Signed) E. IMPEY,
Post Master General.

Bombay, Post Master General's Office, 31st August 1858.

To accompany Government Letter, General Department, No. 2380, dated the 29th September 1858.

(Signed) H. YOUNG,
Chief Secretary to Government.

No. 128 OF 1858.

To H. YOUNG, Esq.,
Chief Secretary to Government, General Department.

SIR,—I have the honor to acknowledge, in the name of the Committee of the Chamber of Commerce, receipt of your letter No. 2380 of 1858, dated the 29th of September, with reference to a scheme for altering the days of departure of the Indian mails, as proposed by Dr. Impey.

To this scheme the Committee have given their best attention. Whilst they accord to the Post Master General every credit for his desire to satisfy the wants of the mercantile community and the public generally in a matter of so much importance as overland mail communication with Europe, they cannot look on the plan suggested, even if it was practicable, as being anything more than the merest approximation to a remedy for the evils which it is intended to provide against.

It is proposed to give Bombay the benefit of a weekly mail from Europe, by altering the dates of sailing of all outward and inward steamers on the China, Bombay, and Calcutta lines, so that a general meeting of mails may take place on a given day at Galle. But at the very best, and by Dr. Impey's own admission, this plan would only give Bombay the indirect mail one or two days before the arrival of the next direct one, whilst it might frequently happen that Bombay would receive the indirect mail some days after the direct one, thus throwing masses of important correspondence into the most dire confusion.

The analysis of sixteen voyages made this year by steamers of the P. & O. Company shows, supposing Dr. Impey's plan for con-

veying a mail *via* Galle were carried out under the most favorable circumstances, that in six instances the letters would have arrived at Bombay one or two days in advance of the next following direct mail; twice on the same day; and in eight instances from one to six days behind the direct mail. Thus for example, the mails leaving London for Bombay direct on the 17th would, in the majority of cases, arrive before those of the 9th preceding, by the indirect route.

Supposing, however, that the arrangements proposed were liable to no disturbance whatever—that the meeting at Galle should take place with the utmost regularity—the Bombay community would gain nothing more than the arrival of two mails almost simultaneously; whilst in the matter of out-going mails, serious inconveniences would have to be submitted to. In the first place, the departure of the English and China mails on the same day, would be a great disadvantage to the mercantile community. In the next, it has not been calculated by the Post Master General that the scheme proposed would involve new arrangements at Alexandria. The corresponding steamers between England and Alexandria, and vice versa, will not run in conjunction, as will be seen from the following:—

Outward mails leave London *via* Marseilles about 9th and 25th, and arrive at Alexandria about 18th and 4th.

Inward mails leave Bombay about 9th and 25th, and arrive at Alexandria about 25th and 11th.

The mails would therefore, according to the terms of the existing contract, have to be detained at Alexandria for a full week, waiting for the homeward steamer, unless the Government saw fit to arrange for extra steamers for the conveyance of the Bombay mails in the Mediterranean, a measure which would involve the necessity of a fresh contract and an expense fully equal to, if not more than would be required for a direct fortnightly steamer from Bombay to Aden to meet the Calcutta mails to and from England.

Finally, when the question is considered of making Galle a grand junction for all converging lines, leaving aside the question of the practicability of carrying out such an arrangement with certainty, the Post Master General has overlooked the consequences that would most certainly result from it, and which would derange the whole of his Time Tables. Galle is but a small harbour, without sufficient working space for four large steamers. The labour of coaling is difficult and tedious. The coal required

by the four steamers, and the cargo to be transhipped would, on the average, amount to about 3,000 tons, and this work could not fairly be accomplished under four to six days. The Calcutta inward and outward steamers would of course be first despatched; the outward China steamer would probably follow; and then the Bombay steamer, as being the least important, would be left to the last, probably after a detention, as already shown, of six days. This of itself would completely frustrate the intended purposes of the Post Master General's scheme.

Taking all these circumstances into consideration, the Committee of the Chamber of Commerce are confirmed in the conviction expressed some months ago, that nothing but a direct weekly steamer will put Bombay in its proper position with regard to overland mail communication with Europe, and they would again express an earnest hope that the Government may see fit to take into their most favorable consideration a subject of such importance, not only to the interests of this Presidency but to the whole of India; inasmuch as Bombay, being the nearest point to Great Britain, and the electric telegraph being now in operation, it is manifest that by means of a direct weekly mail hither, news from England could be communicated to all parts of the other Presidencies within reach of the telegraph in a shorter time than is possible by any other route.—I have the honor to be, Sir, &c.,

(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 15th November 1858.

GENERAL DEPARTMENT.

No. 2983 OF 1858.

Document to whom sent.	*For what purpose.*
Post Master General.	For report with reference to his letter No. 2039, dated the 7th September 1858.

By order of the Right Honorable the Governor in Council,

(Signed) H. YOUNG,
Secretary to Government.

Bombay Castle, 23rd November 1858.

The following is a Report by Dr. Impey, Post Master General, on Chamber's letter to Government, No. 128 of 1858, and dated the 15th November 1858:—

No. 3053 OF 1858.

Report.

I concur most fully with the Chamber of Commerce that, in point of necessity and utility, the best and most appropriate, if not the only satisfactory means of connecting Bombay with England, is by direct weekly steam communication, which only requires an additional steamer from Aden twice a month. I admit also that the main point of the scheme proposed by me, as far as affects the third and fourth mails, is the uncertainty of the mails *via* Galle, and the chance of their not arriving before those which come direct. This I mentioned at an interview with the Chairman of the Committee, Mr. Ryrie, when he was so good as to discuss the subject with me.

2. The postal object in receiving the mails even two days in advance, is to enable the letters and summaries to be distributed to stations in the interior, and to give them the advantage of replying.

3. In the analysis of the voyages *via* Galle, the Committee have, however, I think, overlooked the circumstance of the expected shortening of the voyage, by improvements in the size and horse power of the steamers, which would bring the calculation closer to the approximation I have given, and which may fairly be reckoned, though it applies to both routes.

4. The despatch of the intermediate mails by Galle is, however, not the main point or feature of the plan, and that part of it might be adopted or omitted as it is found to suit the mercantile interests and convenience; and it would appear from the reply of the Chamber, that the departure of the China and English mails on the same day, is regarded as a disadvantage. There is, however, some misapprehension on the part of the Chamber in stating that the same day is fixed for the departure of the China and English mails, for in the Table attached to para. 9 of my letter,* No. 440 of 31st August last, to the Director General of the Post Office in India, the dates of despatch of the steamers from Bombay to China are given as the 7th and 20th, that is, two and four days before those of the mails to England.

* Copy submitted to Government with letter No. 2039 of 7th September last.

5. In the calculations which the Chamber have made regarding the detention of the steamers at Alexandria, there is likewise a similar misconception of the dates of despatch as given in my Table; the anticipated celerity of future passage is likewise not taken into account.

6. I contrast these dates and my own to exhibit this, as it makes a very material difference.

Outward.

Post Master General's dates.				Chamber of Commerce's dates.			
Mails leave London ...	11 27	Arrive at Alexandria in 8 days	19 5	Mails leave London ...	9 25	Arrive at Alexandria in 9 days	18 4

Homeward.

Post Master General's dates.				Chamber of Commerce's dates.			
Mails leave Bombay ...	9 24	Arrive at Alexandria in 13 days	22 7	Mails leave Bombay ...	9 25	Arrive at Alexandria in 16 days	25 11

7. With a railway right through to Suez, and more powerful steamers on this side, the dates I have taken are not, I think, founded on unreasonable expectations, the entire passage being computed at twenty-two days and seventeen hours. If I am right in my surmises, there would not be any unnecessary detention at Alexandria, and none of much importance, or more than would suffice for the wants of steamers as to coals, passenger arrangements, &c. No additional expense would therefore be incurred in this respect, to detract from that required for the additional steamers from Aden to Bombay.

8. But the chief and main feature of my proposed plan has not been touched on by the Chamber, viz., the alteration of the days of departure of the Bombay mails from England, so as to afford the Bombay community, and stations within two days' post, time to reply by the out-going mails of the 9th and 24th of each month.

9. It may be observed, that this is a measure which the Press have strenuously advocated and contended for. In point of fact, it is, or may be said to be, merely an interchange between the Bombay and the Calcutta dates, with a slight advancement of those of Bombay on account of the shorter passage. Thus—

	Present dates of departure of Steamers from England.		Proposed dates of departure.	
Bombay..	2nd	17th	11th	27th
Calcutta..	9th	25th	3rd	18th

10. Without causing any disadvantage to Calcutta this alteration would afford to Bombay all that is required in the respect of speedy reply, and would save a fortnight in time to Government and the public.

(Signed) E. IMPEY,
Post Master General.

Bombay, Post Master General's Office, 1st December 1858.

No. 7 OF 1859.

To H. YOUNG, Esq.,
Secretary to Government, General Department,
Bombay.

SIR,—I am directed by the Committee of the Chamber of Commerce to acknowledge the receipt of your letter No. 2983, dated 6th December last, returning for reconsideration the scheme proposed for an alteration of the dates of arrival and departure of the overland mail at Bombay, with the Chamber's letter on the subject, as also the Post Master General's rejoinder thereto.

In reply, I have the honor to state, by direction of the Committee, that they have again, and in consultation with the representative of the Peninsular and Oriental Company here, Mr. Ritchie, who has afforded them much valuable information on the subject of our mail communications both present and prospective, given the Post Master General's scheme, together with his rejoinder to the Chamber's letter, their most careful consideration. The result, however, has been to confirm the Committee in the view already expressed in my letter No. 128 of 1858, dated 15th November last, that the scheme is inefficient for the purpose for which it is intended, and that its adoption would confer no real benefit upon the public.

The Committee of the Chamber do not, in their consideration of the Post Master General's scheme, overlook the increased speed of steamers which may now be counted on, nor the saving of time that is effected by the completion of railway through Egypt; and even taking into account the new contract which the Peninsular and Oriental Company have entered into for the conveyance of the Australian mails *via* Suez, Mr. Ritchie informs the Committee of the Chamber that the carrying out of the scheme in question

could not be accomplished by the Peninsular and Oriental Company under their present contract, without a subsidy for a special steamer in the Mediterranean.—I have the honor to be, Sir, &c.,

(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 19th January 1859.

No. 527 OF 1859.

GENERAL DEPARTMENT.

TO THE ACTING SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—With reference to your letters Nos. 128 and 7, dated respectively the 15th November 1858 and 19th January 1859, I am directed to transmit for the information of the Chamber of Commerce, copies of a Resolution passed by Government, under date the 18th instant, and of the document specified in its last paragraph.—I have the honor to be, Sir, &c.,

(Signed) H. YOUNG,
Chief Secretary to Government.

Bombay Castle, 28th February 1859.

(Copies.)

No. 3 OF 1859.

To H. YOUNG, Esq.,
Chief Secretary to Government, Bombay.

SIR,—In reference to the advertisement in the *Government Gazette*, for Tenders for the Mail Service between Bombay and Keamaree Bunder, to be commenced in 1860, I have the honor to enquire whether a proposal to connect this service with a branch line of communication between Kurrachee and Aden, under the arrangements noted below, would meet with the support of the Right Honorable the Governor in Council, should it be submitted to Her Majesty's Government by the Directors of this Company.

The present half-monthly mail service between Bombay and England, from its incomplete and defective organisation, has been made more than once the subject of representation to Government, and several suggestions have been submitted for its improvement. It is open to several objections. There being no contract service in correspondence with it, between Southampton and Alexandria, the heavy sea-borne mails have frequently been subjected to a detention of a week in Egypt, and the dates of arrival and departure of the steamers at Bombay, from causes at present unavoidable, and arising out of the general scheme of postal communication with India, have been so timed that the outward leaves only a few hours before the appearance of the inward steamer from Suez; thus creating a great and inconvenient delay in the transmission of correspondence.

To remedy these evils, and establish an effective weekly mail communication between England and India, it has been suggested that a semi-monthly branch line of steamers should be placed between Bombay and Aden, in connection with the Bengal steamers.

The only objection against this scheme is the very heavy expense which it involves, and its unpromising character as a mercantile undertaking, as the receipts from cargo and passengers would be very small, and could not be considered additional income, but would be drawn in a great measure from the earnings of the present line of steamers, and form, in fact, a deduction from them.

Instead of this plan, I would submit for the consideration of Government, whether a semi-monthly line of steamers from Bombay, *via* Kurrachee to Aden, in conjunction with the Bengal steamers, and returning by the same route to Bombay, would not offer very important advantages: 1st, By supplying a fortnightly communication between Bombay and Kurrachee; 2nd, By giving an effective weekly mail service between India and England.

The annexed Tables will show how the arrangements would operate, both as respects the homeward and outward mails. From England, the arrivals, under the proposed arrangements, would take place about the 6th, 12th, 20th, and 27th of the month, and the despatches to Suez on the 1st, 9th, 17th, and 25th of the month.

By establishing a direct line between Aden and Kurrachee, all Upper India would be benefitted; the transmission of letters and packages to and from Scinde, the Punjaub, and North-West Pro-

vinces, would be accelerated from ten to six days; passengers would be gainers to the same extent, and would save the expense of coming to Bombay, and their hotel charges while there previous to embarking in the Suez steamer; and by means of the electric telegraph the English intelligence could be distributed from Kurrachee over India generally, in anticipation of the arrival of the Bengal steamer at Point de Galle carrying English mails of the same date.

I am fully aware that the plan which I now submit is not without its disadvantages. The mercantile community of Bombay will naturally object to any arrangement which lengthens the time the mails are in transmission, and that gives to Kurrachee the earliest intelligence of the English markets. The passage also from Kurrachee to Aden, along the Arabian Coast, is not without serious hazard, and the heavy adverse weather which is encountered strains the vessels, and adds materially to the working expenses of the service. This has been proved by the experimental voyages by this route made in 1855, and it is deserving consideration whether, at this season, when traffic is in a great measure suspended, and there are few passengers travelling, it would not be better to relinquish this portion of the voyage, and from June to September limit the service to a fortnightly steamer between Bombay and Kurrachee, in connection with the direct Suez line.

To maintain the indirect line to Aden, the services of three running steamers would be required, and this, employing vessels of the smallest tonnage and power suitable for the work (say screw steamers of 800 to 1000 tons burthen) would involve a very heavy outlay. The estimated receipts from passengers and freight would do little to meet this expense, and the deficiency would require to be covered by the subsidy paid for the conveyance of the mails. The question is, therefore, whether the benefits which the scheme offers to the public would be a fair equivalent for the price which must be paid. One thing is certain, that by no other arrangement can an effective weekly mail communication between England and India be so economically established.

In submitting this plan for the consideration of Government, it must be clearly understood that I am not authorised to enter into any contract for the performance of the service. The terms and conditions of a mail contract can only be arranged in England between Her Majesty's Government and the Directors of this Company, but I am desirous of ascertaining whether the plan

suggested meets with the approval and support of the Right Honorable the Governor in Council, as likely to serve the public interests, and improve the mail communication, as without this sanction I would not bring the matter under notice of the authorities in London.—I have the honor to be, Sir, &c.,

(Signed) JOHN RITCHIE,
Superintendent.

P. & O. S. N. Company, Bombay, 7th January 1859.

PRO FORMA SCHEME

for maintaining a weekly mail communication between England and Bombay, by running a branch line of steamers between Bombay and Aden, *via* Kurrachee, in addition to the present mail contract service.

Homewards ; Bombay to England.

Mails leave Bombay.	Arrive at Kurrachee.	Leave Kurrachee.	Arrive at Aden.	Mails reach England.	
				Viâ Marseilles.	Viâ Southampton.
1	4	4	11	28	2
9	.....	.....	18	3	9
17	20	20	27	14	19
25	.....	.....	3	10	25

Outwards ; England to Bombay.

Mails leave England.		Arrive at Aden.	Arrive at Kurrachee.	Leave Kurrachee.	Arrive at Bombay.
From Southampton.	Viâ Marseilles.				
4	9	26	3	3	6
12	17	2	.....	.....	12
20	25	10	17	17	20
27	2	18	.....	.....	27

The distance from Bombay to Aden direct is 1,650 nautical miles, from Bombay to Kurrachee 520 miles, Kurrachee to Aden 1,500 miles = 2,020 miles. I estimate the difference in time about three days, allowing a detention at Kurrachee, going and returning, of twelve and eighteen hours, according to the state of the tides.

No. 286 OF 1859.

GENERAL DEPARTMENT.

To J. RITCHIE, Esq.,
Superintendent P. & O. S. N. Company, Bombay.

SIR,—I am directed by the Right Honorable the Governor in Council to acknowledge the receipt of your letter, dated 7th January 1859, containing a proposal for maintaining a weekly mail communication between England and Bombay, by running a branch line of steamers between Bombay and Aden *via* Kurrachee, in addition to the present mail contract service between Bombay and Aden.

2. In reply, I am instructed to inform you that this Government approve entirely of the proposed scheme, and will submit it for the favorable consideration of the Government of India and of the Home Government.—I have the honor to be, Sir, &c.,

(Signed) H. YOUNG,
Chief Secretary.

Bombay Castle, 1st February 1859.

RESOLUTION OF GOVERNMENT, DATED 18TH FEBRUARY 1859.

The Acting Post Master General should, with reference to his Report dated the 31st January 1859, be furnished for his information with a copy of the recent proceedings of this Government consequent on the proposal submitted by the Superintendent of the Peninsular and Oriental Steam Navigation Company in Bombay, for maintaining a weekly mail communication between England and Bombay, by running a branch line of steamers between Bombay and Aden *via* Kurrachee.

2. Copies of Mr. Ritchie's letter containing the above proposal, and of the Government reply thereto, should also be forwarded for the information of the Chamber of Commerce, with a copy of the Post Master General's Report dated the 31st January 1859.

To accompany Government letter, General Department, No. 527, dated the 28th February 1859.

(Signed) H. YOUNG,
Chief Secretary.

APPENDIX C.

COTTON CULTIVATION.

To J. A. CROWE, Esq.,
Acting Secretary Bombay Chamber of Commerce, India.

SIR,—The Executive Committee of this Association direct me to acknowledge with thanks your communication of the 3rd July from the Bombay Chamber of Commerce.

They have read with interest and attention your observations on the seed supplied by this Association, and have paid particular attention to your enquiries "why the Saw-Gin Indian Cotton is in disrepute?"

They believe the principal cause to be the improper use of the saw-gin: that the cotton, being of a soft nature, has been cut and broken by over-ginning, for on enquiry they heard that, though the cotton has been thoroughly cleaned from dirt, the fibre has been so injured that it has been impossible to "card" it without excessive loss. They are confirmed in this opinion by the evidence of some Indian cotton which has been exhibited to them properly saw-ginned. They fear that the evil of over-ginning by the saw-gin is one which it will be difficult to avoid; and from experiments which they have caused to be made, they believe that the Macarthy Gin will be found to be well adapted for cleaning Indian cotton, and at the same time be an implement by which it will be impossible for a careless workman to injure the staple and fibre by cutting, as is the case with over-ginning by the saw. Under this impression, they desire to introduce the Macarthy Gin and the Committee have therefore determined to present ten of these Gins to your Chamber, and desire that they may be placed in the hands of proper and intelligent persons, in order that their working qualities may be properly tested.

The net cost of these Gins is £8-11-0 delivered on board at Liverpool, packed, and this Association is prepared to forward any quantity at that price for which your Chamber may obtain orders from cultivators or other parties.

Your remarks on the necessity of increased facilities of communication have the attention of the Committee. They coincide with the opinions which this Association expressed to Her Majesty's Government in November last, and also to the East India Company.

This Committee received from the East India Board the assurance that certain works, which it was stated would materially assist in developing the production of cotton, if not already begun, should be immediately undertaken.

The following are the works referred to :—

		ESTIMATED COST.			
1.	The construction of a Pier at Ghorabunda .	£ 3,000	0	0	
2.	The construction of serviceable Roads to this Pier	10,000	0	0	
3.	The construction of a Pier at Soondaree in Kattiwar.....	3,000	0	0	
4.	The continuation of Roads already commenced in this Province by the Bombay Government.....	10,000	0	0	
5.	The formation of a Harbour at Sedashevagurr, with Roads into the interior, towards the great Cotton districts of Dharwar.....	60,000	0	0	
6.	Increased facilities for the navigation of the Godavery River.....£30,000 temporary Increased facilities for the navigation of the Godavery River..... 200,000 permanent	230,000	0	0	
7.	The consent of the East India Company to the construction of a Tidal Basin for Cotton Boats in the Bombay Harbour...	Consent only.			In these cases native capital is waiting to be invested if permission can be obtained to expend it.
8.	Continuation of Railway and Roads into the Valley of Berar	Consent only.			
9.	Canal, by private enterprise, from Belgaum eastward	Consent only.			
		£316,000	0	0	
	Deduct.....	30,000	0	0	
	Nett proposed Expenditure	£286,000	0	0	

10. That greater facilities and encouragement be afforded to the promoters of those schemes of private enterprise which will tend to the more rapid development of the commerce and industry of British India.
11. That to such Companies, or to private individuals who may request, opportunities may be afforded for the purchase of land in fee simple.

(N.B.—These proposals are not in any way intended to supersede, or qualify, the proposals already submitted to Her Majesty's Government and the East India Company by the Association, to raise and apply a sum of four millions annually, for five years, in such public works as a Board appointed for the purpose might consider to be necessary for the development of the industry and commerce of that country.)

I am desired to enquire whether your Chamber can furnish any information respecting the progress made in the above-named works, and whether you can suggest any further measures for facilitating the exportation of good Indian cotton.

I am further desired to state that this Association has forwarded to your Chamber two Macarthy Gins and one barrel of seed, addressed to Futaychund Khemchund, merchant, Ahmedabad, in Guzerat, India, with the request that you will oblige by forwarding them as directed.—I am, &c.,

(Signed) G. R. HAYWOOD,
Secretary.

Cotton Supply Association; Offices, No. 1, *Newall's Buildings, Manchester,* 12*th August* 1858.

To JOHN FLEMING, Esq.,
Chairman Bombay Chamber of Commerce.

SIR,—I am in receipt of your letter of the 19th August last, addressed to the late Secretary of this Association, and have duly submitted your communication to the Committee of this Association.

I am desired to express to you the gratification of the Committee at the exertions made by your Chamber, to render available the seed forwarded by this Association, and to express their regret at its late arrival. They will, however, be glad to hear of any useful results arising from its distribution.

The Committee agree with you in the opinion expressed as to the seed being liable to injury by being too long kept in a hot climate, and also that it would be injudicious to disseminate unfertile seed; at the same time I am requested to suggest (what may be already known to you) that the best test of the fertility of seed is to spread out a quantity of damp moss, and upon it to place a layer of seed—this again should be covered with a quantity of moss, and in the course of six or eight days the percentage of good or bad seed will be visible from its sprouting. The Committee recommend the adoption of this test before distributing seed.

I am further desired to state that the Committee have given instructions for two hundred bags of New Orleans seed to be forwarded to your Chamber, so as to arrive in Bombay about March

or April next, which they place at the disposal of the Chamber for distribution, and trust that it will be found productive of good results among the cotton growers of your Presidency. They have also made a grant of ten Macarthy's Gins, which they trust your Chamber will place in such hands as will be most likely to turn them to good account.

On the despatch of the Gins and also of the seed, I shall further communicate with you.—I have the honor to be, &c.,

(Signed) G. R. HAYWOOD,
Secretary.

Cotton Supply Association; Offices, No. 1, *Newall's Buildings, Manchester,* 27*th September* 1858.

To G. R. HAYWOOD, Esq.,
Secretary Cotton Supply Association, Manchester.

SIR,—I am directed by the Committee of the Chamber of Commerce to acknowledge with thanks your letter of 27th September last.

The Committee are glad to learn that the Committee of the Cotton Supply Association concur in their views as to the unadvisability of disseminating unfertile seed. The Association may feel assured that the Committee will have the greatest pleasure in furthering its views by distributing the fresh supply of two hundred bags of cotton seed, as well as in giving a fair trial to the Macarthy Gins when they arrive.

The Committee has much pleasure in stating that some of the last cotton seed sent by the *Malabar* has been sown at Kulbhuntly, on the Neilgherries, was coming up well, and expected to turn out quite as good as the parent stock.—I have the honor to be, &c.,

(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 12*th November* 1858.

TO THE PRESIDENT OF THE BOMBAY CHAMBER OF COMMERCE.

SIR,—I am directed by the Committee of this Association to inform you that two hundred bags of New Orleans Cotton Seed have been shipped per *Turon*, and ten Macarthy Gins per *Alma*, as per enclosed Bills of Lading, to your address.

The Seed and Cotton Gins are placed at the disposal of your Chamber, for the purpose of distribution in such manner as may be deemed most likely to promote the increased growth or better production of an improved staple.

The Seed has been obtained from New Orleans, and is called "The Petit Gulf Seed;" and in order to test its vitality before distribution, it would be advisable to take twenty or thirty seeds, place them upon damp moss, and cover them with the same; in five or eight days, if the seed germinate and sprout, there can be no doubt of its adaptability for growing in fair soil.

In reference to the Macarthy Roller Gins, they are adapted for working by hand power, but more profitably, where practicable, by steam, bullock, or horse power. By steam the speed should equal six hundred to six hundred and fifty revolutions per minute. The great advantage of these Gins has been found by experiment to be that they are equally applicable to long and short staple cotton, and do no injury to the fibre. The price of these Gins is £7-10-0 each delivered in Manchester, and the Committee will be glad to furnish any number of them at cost price to native cultivators or others.

The Committee will be glad to be informed, on the arrival of the seed, the result of the test above referred to, and will be happy to hear in due course in what manner both the Seed and Gins have been disposed of, and from time to time the prospects and results accruing therefrom.

I beg to forward by this mail a few copies of a Treatise on Cotton Cultivation, and also *The Cotton Supply Reporter*, to which latter publication I beg to solicit any documentary or statistical information with which you may be pleased to favor the Association.—I have the honor to be, &c.,

(Signed) G. R. HAYWOOD,
Secretary.

Cotton Supply Association; Offices, No. 1, Newall's Buildings, Manchester, 11th December 1858.

TO THE PRESIDENT OF THE CHAMBER OF COMMERCE, BOMBAY.

SIR,—I am directed by the Committee of the Cotton Supply Association to request the favor of your acquainting me with the opinion of your Chamber on the question of supplying the native cultivators within reach of your influence with good New Orleans cotton seed, the total quantity you could annually distribute with advantage, with the least liability to waste.

Upon this point the Committee are anxious to receive clear information, as they may probably be able to enter into arrangements for forwarding as many tons of cotton seed as you can dispose of either gratuitously, at half price, at prime cost, or in exchange for cotton.

The dissemination of superior seed is considered by the Committee to be the first step towards improving the quality and the staple of the Indian cotton, for the influence will be felt even if the seed should become partially deteriorated by hybridising with the native cottons.

The Committee would be glad to be informed as to what month of the year you would wish the seed to arrive in Bombay in order that it may not deteriorate from lying in store. This Association cannot obtain fresh seed from the United States before the month of January or February, which of course is too late to be forwarded for that season's sowing in India, and they consider that it may be effectually stored in England without deteriorating, and would be ready for shipment as you required it towards the close of the year.

They would be glad also to learn if there be any direct communication that you can recommend from the southern parts of the United States to your port, as probably arrangements may be effected for shipping the seed direct from some of the American ports, so as to save the necessity of keeping the seed over the season.—I am, &c.,

(Signed) G. R. HAYWOOD,
Secretary.

Cotton Supply Association; Offices, No. 1, Newall's Buildings, Manchester, 8th February 1859.

No. 43 OF 1859.

To G. R. HAYWOOD, Esq.,
Secretary Cotton Supply Association, Manchester.

SIR,—By direction of the Committee of this Chamber, I have the honor to acknowledge the receipt of your letter of February 8th respecting the distribution of New Orleans cotton seed in the cotton districts of this Presidency. In reply the Committee desires me to say that it will very gladly undertake to arrange for the distribution of any quantity of seed that may be consigned to it for that purpose, and it would recommend that not more than ten tons be sent at a time. The only direct communication between the United States and Bombay is by the ships coming out with the regular supplies of ice from Boston, and it might perhaps be possible to arrange for the forwarding of seed in that way. As to the best time for the seed to arrive here, the Committee desires me to say that the question of early and late sowing of exotic cotton seed in this country is one upon which there is much difference of opinion, and I have been directed to forward to you under a separate cover, by this mail, copies of various reports on this and other subjects relating to the growth of cotton in this country, a perusal of which the Committee hope will prove interesting to the members of your Association. The relative merits of the early and late planting has, the Committee of the Chamber believe, yet to be practically ascertained, and a portion of the seed lately arrived per *Turon* shall be devoted to experiments to this end. As regards future supplies, therefore, the Committee are of opinion that if they arrive here any time between the middle of October and the early part of April, they could be distributed in the interior before the setting in of the rains.

The distribution of seed, however, is attended with some difficulties. The only agency available at present for such purposes is that of the Government officers and servants in the several Collectorates, under whose directions the seed is given to the cultivators, and the results of these experiments hitherto leads the Chamber rather to fear that Government interference tends to diminish the probabilities of success. Such agency is always slow in its operation, and it sometimes happens that those appointed to the duties are indifferent as to results. The natives, moreover, are apt to suspect that even in connection with the gratuitous bestowal of a benefit, it is but the cover for ulterior

and sinister designs, such as the increase of taxation, &c.. In like manner, the free gift of seed, even through private agency, is apt to be regarded as having any other object than the advantage of the ryot.

Under these circumstances, the Committee of this Chamber would venture to suggest, as the best and the most practical means of furthering the objects of your Association, that it should enter into certain arrangements for promoting the cultivation, and making known the value of the New Orleans seed through an independent agency and experiments of its own. The plan proposed, in outline, is that plots of land of say from twenty to fifty acres, in different districts, and as near as may be to the lines of railway and other roads, should be taken on behalf of the Association. That each of these plots should be placed under charge of a Karkoon or native writer, who would engage and superintend labourers for the cultivation of the crop, and report weekly on the progress of the cultivation. The produce of each plot when gathered and cleaned would be sent to Bombay, and thence shipped for Liverpool, consigned to the Association; or else be sold in the district where it was produced, in order to show the native that for better culture and refraining from the mixing of good and bad seed or cotton, they would really get a proportionate remuneration in their selling price.

As a preliminary measure, a Committee should be formed here to direct these arrangements, and this Committee should be furnished with funds to the extent of from £300 to £500 to cover the necessary outlay on hand labour, &c.; but these experiments it is hoped would, after the first trial, be self-supporting or nearly so at all events. The Committee of the Chamber would add, that should your Association entertain these suggestions, they would probably be able to get a gentleman here thoroughly acquainted with the cotton cultivation of this Presidency in all its details, to undertake the general superintendence of the whole experiments, and assist the Committee with his knowledge and experience.

The Committee is glad to have to intimate that a portion of the seed sent out by your Association last season, which it was feared might be found unfertile, is reported of most favorably by the gentleman in the Dharwar collectorate to whom a supply was furnished. The produce, he writes, will be about ten bales, and will be sent to Bombay, and then shipped for Liverpool.

In conclusion, the Committee have to mention that the seed arrived per *Turon* is to be distributed in Scinde, Guzerat, and the Wynaad districts, and this Chamber will do all in its power to see that the best use is made of the seed, by endeavouring to enlist the interest of those entrusted with it in the object.—I have the honor to be, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay, Chamber of Commerce, 26th April 1859.

No. 76 OF 1859.

To G. R. HAYWOOD, Esq.,
Secretary to the Cotton Supply Association, Manchester.

SIR,—Referring to their last letter dated 26th April, I am directed by the Committee of the Chamber to inform you that the cotton seed last received has been distributed as follows :—

To the Commissioner of Scinde, for experiment in that Province	30	Bags.
,, Dr. Forbes, Supt. of Cotton Gin Factory	15	,,
,, Government for distribution in Southern Mahratta Country.....	30	,,
,, Do. do. Guzerat.....	45	,,
,, Do. do. Oomrawuttee and elsewhere	63	,,
,, Archibald Robertson, Esq., Bombay...	7	,,
,, Messrs. Leckie & Co., for Wynaad Districts	3	,,
,, Seton Karr, Esq., Collector of Belgaum.	1	,,
,, Futtaychund Khemchund, Bombay....	1	,,
,, Other persons in small quantities.....	1	,,
,, Remaining on hand	4	,,
	200	

The Member of Committee, Mr. Robert Wallace, who attended to the distribution of a portion of the seed, addressed letters to the parties to whom the seed was sent; and I have now the

pleasure to hand you copy of correspondence between that gentleman and several influential native merchants who take an interest in the improvement of the districts with which they are connected. You will no doubt peruse this correspondence with much interest.

You will observe from the letter of Byramshaw Dossabhoy that the cultivators are greatly prejudiced against the use of American seed, it having proved in several instances an unremunerative crop; but in the Southern Mahratta Country the prejudice at first was fully as strong, but we still see that the improved cultivation has now taken a firm hold in that district, and it may fairly be expected to increase steadily. The Chamber therefore is induced to believe that, although the progress of improvement is certainly very slow, and at times almost discouraging, considerable benefit results from the perseverance of Government and private individuals, amongst whom the promoters of your excellent institution deservedly take the first rank.

The Chamber has received several communications respecting the growth of cotton, as well as small samples of different indigenous varieties, upon which they have reported as usual—none of these communications are however of any immediate interest beyond keeping alive the active spirit of improvement.

The Sea Island variety having been grown to a small extent with success at Hooblee in Dharwar, and being now further experimented upon by early sowing and pruning, the Chamber would suggest that a small quantity of the best Sea Island seed (say 5 or 10 bags) might be sent with advantage in the next consignment, as the seed now employed is old Egyptian Sea Island that has been long cultivated experimentally in small patches in Dharwar; and they have reason to believe that it has become partially hybridised with American, native, and other varieties. It would be very desirable that this seed should arrive about February next, and if not obtainable in any other way, it might be worth the expense to send one box overland, as it has been fully demonstrated that Sea Island cotton will not flourish if sown after the monsoon, there being not time for the plant to reach maturity before the rains in April.

I beg to enclose herewith receipt from the P. & O. Company for a small packet of the beforementioned Sea Island cotton, which will probably be of interest to you.

The Macarthy Gins have duly arrived, and will be cleared from the Custom-House in a few days; it will however be too late to do anything with them till after the monsoon.—I am, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, Chamber of Commerce, 5th July 1859.

TO THE SECRETARY OF THE CHAMBER OF COMMERCE, BOMBAY.

SIR,—I have the honor to acknowledge the receipt of your letter of the 26th April, and am desired to convey to your Chamber the best thanks of the Executive Committee for the careful consideration given to the subject of their communication, and for the offer of co-operation made by the Chamber in a matter of such moment to the mutual interests of India and of this country.

The Committee of this Association having duly considered the suggestions submitted by your Chamber as to the formation of a Committee at Bombay for carrying out an experiment for improved cultivation, passed the following Resolution :—

"That this Association at once adopts the suggestion of the "Bombay Chamber of Commerce as to an experimental agency "to be established under their direction and control, and this "Committee unanimously resolves to place the sum of £400 at "the disposal of the Bombay Chamber for the objects specified in "their letter of the 25th April 1859, and will be prepared, at any "time within two years from the date hereof, to honor Drafts "signed by the Chairman pro tem. and the Secretary for amounts "not exceeding in all the sum above named."

The Committee prefer placing these funds in the hands of your Chamber without any definite instructions from themselves, assured that they may safely rely upon your good will and active co-operation in this matter, and are unwilling that the action of your Chamber should be impeded by any interposition on their part.

The Committee will also be glad to furnish supplies of New Orleans seed, and ten tons will be forwarded so soon as it can be procured from the United States. Meanwhile the Committee have ordered eighty to one hundred* bags of seed to be forwarded

* Number not exactly ascertained in time for this mail.

to your Chamber, and they suggest that a portion of the seed now in your possession ex *Turon*, should be applied, if not already disposed of, to the first experiment. Two of Dunlop's Patent Hand Gins will also be forwarded, the merits of which you will find described in an extract enclosed, taken from the *Manchester Guardian*, reporting a public trial of this Gin held at these Offices on the 12th day of March last.

In accordance with suggestions from Mr. Fleming, of your Chamber, this Committee have given extensive circulation to an advertisement (copy herewith) of a public trial which is shortly to take place, at which prizes will be awarded of £5, £10, and £20 for the first, second, and third best Gin forthcoming as a substitute for the Indian Churka, the results of which trial will be immediately made known to your Chamber.

I am further desired by the Committee to suggest that your Chamber may materially promote the objects of this Association—

1. By giving all possible publicity to the operations of this Association by advertisement or notices in the Indian Press.

2. By suggesting through the public papers that this Committee will be glad to receive communications of a practical nature from public or private sources, relative to public works, such as the construction of railways, canals, roads, works of irrigation, &c., the best methods of cultivating or preparing native or exotic cotton, the freehold tenure of land, &c.

3. By procuring, for publication by this Committee, a short useful treatise on the best method of cultivating, pressing, and ginning cotton, such treatise to be hereafter extensively circulated through all the cotton districts of India. (Treatise on the American System of Cultivation herewith as a guide to such compilation.)

4. By pointing out to this Committee the most effective mode of carrying out the circulation of such a treatise in the Bombay Presidency, stating whether your Chamber could undertake to procure the translation of such treatise into the requisite languages or dialects, and the cost thereof; or whether the people would accept them through the Government officers, providing the consent and co-operation of Lord Stanley with His Excellency the Governor of your Presidency can be secured to order such circulation.

5. By furnishing this Committee with the most reliable periodical information as to the extent of acreage under cotton cul-

tivation throughout your Presidency, its increase or diminution, and the causes thereof.

6. By offering Prize Medals or Prize Gins from this Association for extended or improved cultivation by the natives of various districts.

I am desired further to suggest the immediate establishment of a Branch of this Association at Bombay, and probably the Committee you propose for the carrying out of the experiments referred to in the resolution now forwarded, would form a nucleus for this purpose. The Committee seeing that India, and Bombay especially, being directly interested in our objects, are of opinion that all your leading merchants would readily assist by liberal subscriptions in forwarding our views, and they strongly urge upon your Chamber the adoption of such measures as will secure this most desirable object.

I have to acknowledge the receipt of the copies of the various reports referred to in your letter. I shall again communicate with you so soon as the seed and machinery are shipped to your address from Liverpool.—I remain, &c.,

(Signed) G. R. HAYWOOD,
Secretary.

Cotton Supply Association; Offices, No. 1, Newall's Buildings, Manchester, 31st May 1859.

TRIAL OF A NEW COTTON GIN.

On Saturday, a trial took place at the rooms of the Cotton Supply Association of a cotton gin, recently patented by Mr. J. M. Dunlop, of Manchester. Mr. William Fairbairn, F.R.S., acted as judge; and among the members of the Association present were Mr. Edmund Ashworth, Mr. T. Clegg, and others. The gin is constructed on the Macarthy principle; and the improvement consists in the application of a back shaft, on which the handles are fixed, with wheels to connect the back shaft with the roller. The width of the machine is also reduced one half; and by these means combined the speed is greatly increased, 650 to 700 revolutions of the roller per minute being attainable by hand power. Hitherto the Macarthy machine has not been worked by hand, and the speed obtained by steam power has averaged 600 revolutions per minute. The new machine turns out about 10lbs. of clean cotton per hour, and can easily be worked by two men and a feeder. The patentee claims for it the advantages which have long been sought by the Cotton Supply Association, viz., portability, for conveyance into the interior of India and Africa; facility of working, and rapidity of producing clean cotton uninjured.—Mr. Fairbairn will present a report to the Association of the result of the trial.—*From the Manchester Guardian, March 14th*, 1859.

COTTON SUPPLY ASSOCIATION.

Report on the Trial of Dunlop's Patent Hand Roller Gin.

Description of Gin, and how Worked.	Mark.	Maker.	Width.	Weight of Cotton Cleaned.	Duration of Experiment.	Estimated Power.	Weight of Clean Cotton produced in 10 hours.			The kind and quality of Work performed.			Condition of Seeds.	Maker's Price.	Maker's Price with Estimated Cost and Charges.	Estimated Cost on Ten hours' Work.	Estimated Cost on 100 lbs. of Clean Cotton.
							Per Machine.	Per Inch of Width.	Per Power of One Man.	Seed.	Staple.	Cleanness.					
			Inches.	lbs.	Min.	Men.	Weight.	lbs.	lbs.					£	£	d.	d.
Roller Gin worked by hand.	L	Dunlop, 1st Trial	20	1·25	10	2·0	75·0	3·75	37·5	Fibrous	Uninjured	Clean	Whole	10·0	12·5	24·083	32·11
		Dunlop, 2nd Trial	20	1·625	10	2·0	97·5	4·875	48·75	Smooth	Uninjured	Clean	Some broken	10·0	12·5	24·083	24·71

Mr. Dunlop having effected considerable improvements in his Roller Gin, by the introduction of a crank motion for working the agitator at increased velocity, it was again tried on the 12th inst., and that with perfect success in so far as regards the quality of clean Cotton produced. For the quantity cleaned, rate of cost, &c., I have to refer to the above Table.

(Signed) W. FAIRBAIRN.

Manchester, March 21st, 1859.

COTTON GINS—IMPROVEMENT UPON THE INDIAN CHURKA.

To Cotton Gin Makers, Mechanists, and Inventors.

The Committee of the Cotton Supply Association have received from the Bombay Chamber of Commerce two Indian Churkas, or hand-roller gins of native construction, and such as are now used by the natives of India, with the request that they should be submitted to the Machinists of this country, with a view to obtaining, if possible, a superior machine. Your attention is therefore respectfully requested to the construction of this "Churka," which may be seen at the offices of this Association. The objects to be aimed at in the making of an improved machine, are—

1. That the machine do no injury to the cotton, in the process of separating the seed from the fibre. It is said that "no machine can possibly separate the cotton from the seeds with less injury to the staple than does the Churka."
2. That the machine, as far as possible, do rid the cotton from leaf and impurities.
3. That the machine be of simple construction, and durable.
4. That the machine be easily repaired by the native Indian.
5. That it be portable.
6. That the cost be as low as possible. The "Churka" costs only 2 rupees, or 4*s*. It is necessary that the improved machine should be within the ability of the natives to purchase.
7. That the machine be able to do its work faithfully, in spite of carelessness or neglect.
8. That the machine be able to clean a fair quantity of cotton per day, with the labour of one person (male or female).

The Committee submit the above conditions to the consideration of Machine Makers, and Mr. Haywood, the Secretary of this Association, will be prepared to afford any further information that may be required.

It is proposed, in furtherance of the wishes of the Bombay Chamber of Commerce, to hold a trial of the merits of the different gins that may be constructed to meet the above conditions, in two or three months from this date. Due notice of the day of trial will be given.

Premiums of £20, £10, and £5 will be paid by the Association, to the Exhibitors of the gins which rank 1st, 2nd, and 3rd in order of merit.

(Signed) G. R. HAYWOOD,
Secretary of the Cotton Supply Association.

1, *Newall's Buildings, Manchester, 25th March* 1859.

To G. R. HAYWOOD, Esq.,
Secretary to the Cotton Supply Association, Manchester.

SIR,—I have the honor to acknowledge receipt of your letter of the 31st May, and to thank you on behalf of the Chamber of Commerce for the proof of confidence in the interest taken by them in the object of your Association, exhibited by your Committee's resolution to place £400 at the disposal of this Chamber for the purpose of experimental cotton cultivation.

The Chamber will with much pleasure undertake to apply this sum, or such portion as may be required, in the most economical manner possible for the furtherance of the object in view, and feel confident of every assistance from the Government, who have on all occasions endeavoured most actively to promote an improved cultivation.

The season for sowing being now over, nothing can be done until the close of the year; but the Committee hopes that by next May they will be enabled to make a commencement with the experiments, which they trust may tend to the extension of the cultivation of American cotton in other districts than that of Dharwar, where the cultivation seems now to have attained a firm footing.

As soon as the monsoon is over, and communication with the coast and the interior is again practicable, the Macarthy Gins will be forwarded to those districts where a trial may be made of their efficiency. While on this subject, I may remark that it would be desirable for the Patentee to supply drawings and information as to the proper mode of setting up and using these Gins, as on a late occasion a Macarthy Gin, imported by a firm established in the interior, after working well for about a fortnight, suddenly began cutting up the cotton and seed into small pieces, and its use was therefore discontinued. It is probable that this untoward event may have been due to ignorance of the proper mode of putting it together, or possibly to the presence of sand in the kuppas—at all events it would be desirable to know how this evil can be avoided, or should it occur, how it may be remedied.

The Chamber has given every publicity to your views on the subject of cotton cultivation, and are induced to believe that the attention of private individuals, Native as well as European, is now directed to the question; they will lose no opportunity of ventilating the subject to the utmost of their power.

The best mode of cultivating cotton being a question upon which controversy exists, the Chamber thinks it best to defer publishing any treatise on the subject until they have the results of the experiments now proposed to be tried, when, if successful, they will form a basis for the required information.

An attempt was made by Government some years ago, at the suggestion of the Chamber, to obtain the acreage of cotton cultivation, but the results were so manifestly incorrect, that the at-

tempt was abandoned as worse than useless, and only calculated to mislead—the Government would therefore doubtless decline to reinstate the arrangement then entered into for the purpose.

The Committee has not yet been formed to carry out your intentions, as the time for action has not yet arrived, but they will then take into consideration the other suggestions contained in your letter.—I remain, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, Chamber of Commerce, 20th August 1858.

No. 2995 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

To J. FLEMING, Esq.,
Chairman, Chamber of Commerce.

SIR,—I am directed to acknowledge, with the thanks of His Lordship in Council, your letter No. 78, dated the 27th July last, and to request that you will have the goodness to state whether Government is correct in understanding that the Chamber of Commerce, after the examination of the specimens of cotton received from Dr. Forbes, is of opinion that the process of ginning cotton in this country should be abandoned.

2. Copies of your letter under acknowledgment have been forwarded to the Revenue Commissioners, Northern and Southern Divisions, for communication to the Collectors in their respective districts and to Dr. Forbes. The subject of your concluding para., I am to add, has attracted the attention of Government.—I have the honor to be, &c.,

(Signed) H. YOUNG,
Chief Secretary to Government.

Bombay Castle, 10th September 1858.

No. 113 OF 1858.

To H. YOUNG, Esq.,
Chief Secretary to Government, Bombay.

SIR,—With reference to my letter No. 97 of 1858, forwarding to you the opinions of the Chamber of Commerce as to whether the process of cleaning cotton by the Saw Gin should be abandoned or maintained, I have the honor, by direction of the Committee of the Chamber, to inform you that they have received a communication from the Cotton Supply Association, containing information respecting the Saw Gin, which, as being the result of practical experience, you may consider interesting.

The following is an extract:—

"The Executive Committee of the Cotton Supply Association have read with interest and attention your observations on the seed supplied by this Association, and have paid particular attention to your enquiries 'why the saw-ginned Indian cotton is in disrepute?'

"They believe the principal cause to be the improper use of the Saw Gin; that the cotton, being of a soft nature, has been cut and broken by over-ginning,—for on enquiry they learned that though the cotton has been thoroughly cleaned from dirt, the fibre has been so injured that it has been impossible to 'card' it without excessive loss. They are confirmed in this opinion by the evidence of some Indian cotton which has been exhibited to them properly saw-ginned. They fear that the evil of over-ginning by the Saw Gin is one which it will be difficult to avoid; and from experiments which they have caused to be made, they believe that the Macarthy Gin will be found to be well adapted for cleaning Indian cotton, and at the same time be an implement by which it will be impossible for a careless workman to injure the staple and fibre by cutting, as is the case with over-ginning with the saw. Under this impression, they desire to introduce the Macarthy Gin, and the Committee have therefore determined to present ten of these Gins to your Chamber, and desire that they may be placed in the hands of proper and intelligent persons, in order that their working qualities may be properly tested."

The Cotton Supply Association, it will be observed, considers the Macarthy Gin likely to be useful. They have accordingly shipped a few of them to this port. The Committee, on receipt of them, will have the greatest pleasure in presenting two or three

for trial, to be disposed of as the Government may think best, with a view to test their usefulness, particularly as compared with the Saw Gin.—I have the honor to be, &c.,

(Signed) J. A. CROWE,
Acting Secretary.

Bombay, Chamber of Commerce, 1st October 1858.

No. 3748 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

To J. A. CROWE, Esq.,
Acting Secretary to the Chamber of Commerce.

SIR,—I am directed to acknowledge, with the thanks of His Lordship in Council, your letter No. 103, dated the 1st ultimo, and to state that Government will have much pleasure in ordering a trial to be made of the Gins which the Chamber have offered to present to them.

2. Copies of your letter have been forwarded to the two Revenue Commissioners for their information, and for communication to the Superintendents of the Cotton Gin Factory at Dharwar, and Cotton Experiments at Ahmedabad.—I have the honor to be, &c.,

(Signed) H. YOUNG,
Chief Secretary to Government.

Bombay Castle, 10th November 1858.

No. 4083 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

To J. FLEMING, Esq.,
Chairman, Chamber of Commerce.

SIR,—With reference to Mr. Chief Secretary Young's letter to your address, No. 2995, dated the 10th September last, I am directed by the Right Honorable the Governor in Council to forward copy of a communication* from the Revenue Commissioner,

* Dated 9th Nov. 1858, No. 2990, enclosing Dr. Forbes's letter No. 96, dated 13th Oct. 1858.

Southern Division, with accompaniment from the Superintendent of the Gin Factory, Dharwar; and to request the favor of a reply to the query in para. 2 of the latter document.

2. If the Chamber will have the goodness to state what amount of cotton should be sent as a sample, Government will authorise Dr. Forbes to carry out the proposition in his 7th paragraph.—I have the honor to be, &c.,

(Signed) H. B. ELLIS,
Acting Secretary to Government.

Bombay Castle, 8th December 1858.

No. 2990 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

From J. D. INVERARITY, Esq.,
Revenue Commissioner, Southern Division,

To H. YOUNG, Esq.,
Chief Secretary to Government, Bombay.

SIR,—I have the honor to acknowledge the receipt of the Government Resolution, No. 2994, dated 10th September last, with accompaniments, relative to certain samples of cotton submitted by Dr. Forbes, Superintendent Gin Factory, Dharwar, for the opinion of the Chamber of Commerce.

2. In para. 2 of this Resolution, Dr. Forbes is required to report any remarks he may have to offer on the letter from the Chairman of the Chamber, particularly with respect to its 10th paragraph.

3. The accompanying letter from Dr. Forbes, No. 96, dated 13th ultimo, is an answer to this call. It contains several observations of interest, and I beg to submit it in original for the information and consideration of Government. The subject of Dr. Forbes's 2nd para. may be referred to the Chamber of Commerce for a reply, and the proposal in his 7th para. requires the sanction of His Lordship in Council.

4. The Collectors of this Division have been requested to report on the enquiry in para. 10 of Mr. Fleming's communication, whether the distribution of seed, accompanied with the offer of reward to the ryots who shall cultivate the largest and best fields of the superior cotton, has been attempted, and with what success. The following is a summary of their replies:—

5. The Collector of Sattara, Mr. Rose, states that the endeavours of Government to introduce the cultivation of cotton in the Sattara province entirely failed; and on being satisfied of their failure, Government transferred the Superintendent of Cotton Experiments to Scinde in January 1855, and abolished the establishment at Sattara.

6. Mr. Seton Karr, Collector of Belgaum, reports that no reward has recently been offered for the cultivation of the best and largest field of superior cotton. Pains have, however, been taken to explain to the ryots the benefits sure to accrue to them by taking more trouble in picking and sending the cotton to market clean, and more especially by taking care not to mix the foreign with the common country sort. A bonus system had, he recollects, a very full trial some eighteen years ago in the Sholapore collectorate, and the result was a signal failure.

7. The Collector of Poona, Mr. Davidson, reports that upon a requisition from the sole Revenue Commissioner in 1834, the then Principal Collector, after communicating with his several Assistants, suggested that cotton seed should be granted gratis to the ryots, with offers of exempting Bagayet land sown with cotton to the extent of one-third, and Jerayet land to the extent of one-half, of the assessment for five years; and that this suggestion being approved by the Revenue Commissioner and Government, measures were taken for carrying it into effect. These measures were cancelled by Government in June 1858, and no marked result or effect was produced by them in Poona.

8. Mr. Tytler, Collector of Ahmednuggur, quotes the following as the opinion of Mr. Spooner, late Collector, who wrote on the 5th June 1848, that

"The soil does not appear suitable for the growth of cotton, and what is grown is chiefly in small patches, and intended more for the use of the inhabitants than for exportation.

"Several attempts have been made to extend the cotton cultivation in this Zillah, and in the years A. D. 1830, A. D. 1832, large sums of money, as per margin, were advanced by Government free of interest.

"Buswunt Sing, Rs. 25,000. Vide Govt. Letter No. 1743, dated 24th June 1830.
"Buswunt Sing, Rs. 25,000. Vide Govt. Letter No. 1775, dated 7th June 1832.

"From enquiries it appears that the result of these experiments was the ruin of the persons to whom the money was advanced by

Government, and the *loss* to Government of the *interest* of the amount so lent.

"Government also, under date the 22nd November 1832, No. 3222, authorised Mr. Collector Townsend to enter into contracts with individuals for small quantities of cotton, so as to remove all doubts the ryots might entertain of not being able to obtain a market for their produce.

"From the enquiries which I have made, I am of opinion that the cultivation of cotton in this zillah is not likely to increase to any considerable extent; but at the same time I beg to add that every exertion will be made on my part to increase the cultivation of that staple."

On the 16th October 1848, Mr. Spooner further wrote:—

"In A. D. 1833, foreign cotton seed was distributed, but it does not appear to have been appreciated, and the little cotton which is cultivated is indigenous."

Mr. Tytler adds—"Mr. Spooner's opinion seems borne out by the fact that while other culture has enormously extended of late in this zillah, the proportion of land bearing cotton is only 3¾ goont to every hundred acres. The ryots find that grain pays better, and therefore will not try cotton.

"There *is* land in the zillah capable of producing cotton when moisture suffices, and it is probably the extreme dryness of the climate that is unfavourable to its extension. The ryots argue that the country is not suited for the growth of cotton.

"An increased demand, and the facilities afforded by the railway, may eventually lead to the cultivation of cotton in very favoured localities; but I do not conceive that any good would at present result from attempts to force cultivation."

9. The Collector of Dharwar states that "the distribution of seed, accompanied with the offer of reward to the ryots who shall cultivate the largest and best fields of the superior cotton, has not been attempted, for the ryots appear to be very willing to accept of superior cotton seed, and to sow it experimentally without such stimulus.

"The ryots have this season been urged to sow the Egyptian cotton seed that they have been able to save before the commencement of the rains, and if the experiment should be found to fail, it might perhaps be advisable in the ensuing season to offer rewards to the ryots for the largest and best fields of Egyptian cotton. That variety is so superior, and bears so high a price in the mar-

ket, that the attempt to introduce it into these districts should not be abandoned until every means have been tried and failed."

10. In Sholapore, it appears that the attempt to extend the cultivation of cotton was made, and having failed in 1854, no further efforts have been made towards introducing either exotic cotton or saw gins into that collectorate. No offers of reward seem to have been made of late years for the production of the largest or best cotton crop.

11. The subject of early planting adverted to in Mr. Fleming's 10th para. has already been separately reported on to Government in my letter No. 2620 of 5th ultimo, and disposed of by Government Resolution No. 3645, dated 30th idem, wherein Government expressed themselves satisfied that "it is hopeless to expect that, as a general rule, cotton seed in this Presidency can be put in the ground in the month of April with any prospect of success;" but directed that the experiment be tried by Drs. Forbes and Gibson. The result of this experiment will be duly reported to Government.

12. I do not see any advantage in a system of rewards for the production of the best and largest cotton crops. The plan, where already tried, has been unsuccessful; and experience shows that no good results have followed attempts to force particular descriptions of cultivation by means of bounties.—I have the honor to be, &c.,

(Signed) J. D. INVERARITY,
Revenue Commissioner, Southern Division.

Revenue Commissioner's Camp, Sattara, 9th November 1858.

No. 96 OF 1858.

TO THE REVENUE COMMISSIONER, SOUTHERN DIVISION.

SIR,—I have the honor to acknowledge receipt of your endorsement, No. 2380 of 1858, and the accompanying letter from the Chairman of the Chamber of Commerce, upon which my report is required.

2. I regret that the quantity of cotton sent in each sample was not found sufficient to admit of a detailed opinion as to its quality. Being intended for comparison with the English specimens, only the same amount was sent that those contained. To

avoid such a mistake in future, I should be glad to know how much the Chamber consider necessary as a sample.

3. The Egyptian cotton, so much approved of by the Chamber of Commerce, has not as yet been successfully introduced into these districts. It has hitherto been, on all occasions, treated like the native plant, but probably early sowing may be attended with better success, and there is now a small quantity under trial.

4. The Factory cotton thrives well with late sowing, and with the same treatment as the native variety. It produces abundantly, and if it proves sufficiently hardy to withstand the withering influence of the dry east winds, it will, I have no doubt, be readily received by the cultivator, and may be grown in any quantity.

5. With respect to the remarks upon ginning, I do not quite perceive whether Dharwar New Orleans is included in the list of "short stapled cotton of this country," or whether it is excepted by the statement made in the 9th paragraph. If not, it must be remembered that there is no other process by which it can be cleaned. The Southern Mahratta Country is the only portion of the Bombay Presidency in which this description of cotton has been successfully produced. Its cultivation has of late been increasing yearly, and last season it amounted to 100,813 acres. The withdrawal of the Saw Gin would be equivalent to the suppression of this trade, and it therefore becomes a matter of much importance to determine how far any deterioration of the article is to be attributed to the Saw Gin, and how far to other causes.

6. I have placed samples of the cotton side by side with others of the same description of article cleaned by the Saw Gins in America, and contrasted both with the utmost care. Traces of the saw are of course observable upon the fibre of any cotton cleaned by it, but I could detect no difference in this respect between the specimens, and I believe that a close investigation will prove that the article is no more injured by the Gin here than it is in America. If this should be found to be the case, the cause of complaint must be sought for elsewhere. In my communication accompanying the samples, I mentioned that the means at my disposal had enabled me to ascertain that what was exported from these districts as New Orleans cotton, contained an admixture of the native variety, amounting to about one-third, and this circumstance explains the remark made with respect to it in the

9th para. of the letter under report, viz., "that it was found to contain an admixture of short stapled inferior cotton." Native cotton is not only shorter stapled and of inferior quality, but it also suffers much greater injury from the Saw Gin through which it is made to pass. It is not surprising, therefore, that this admixture is complained of. It amounts to adulteration to a large extent, and until it is prevented, it cannot be said that the home market has a fair opportunity of estimating the quality of the article which this country might be made to supply.

7. It was this circumstance which made me desirous that a specimen of unmixed New Orleans cotton should be submitted for the inspection of the home manufacturers, and I look forward with much interest for the report of the sample sent. I shall be disappointed if it does not elicit a more favorable opinion than is at present entertained of the value of Indian-grown American cotton. I only fear that some hesitation will be felt in pronouncing upon so small a quantity, and in that case I would respectfully beg to recommend that I may be authorised to forward from the ensuing crop a sufficient amount to admit of the article being submitted to the test of machinery. Probably one, or, at most, two bales would suffice for this purpose, and I have no doubt that the person to whom it was consigned would readily pay its price for it.

8. With regard to the queries contained in the 10th para. of the letter of the Chamber of Commerce, I beg to state that I am not aware that seed has ever been distributed to the ryots of this part of the country, accompanied by the offer of a reward to those who should cultivate the largest and best fields; nor, as far as I can ascertain, has the system of early sowing ever been tried by them.

9. I have only recently returned from a visit to one of the most prosperous cotton districts in this collectorate. As my object was the selection of a site for a branch workshop for the repair of gins, I was waited upon by a very large body of the cultivators whose interests were concerned, and I had thereby an opportunity of ascertaining their views and opinions upon the points above referred to.

10. The result is, that I do not believe that the offer of rewards or prizes would operate to any extent in securing more care in the cultivation of cotton. If they were sufficiently large to make it worth the trouble, probably one or two individuals might

exert themselves to obtain them; but they would, to a certainty, be left to do so without any effort at competition by the majority, who are too independent in circumstances to render it a matter of necessity, and too apathetic to value the distinction or eclat that it might gain them.

11. That they are all, however, perfectly awake to their own pecuniary interests, I had reasons to observe. I accompanied them to their cotton fields, and pointed out the native plant growing in abundance amongst the New Orleans cotton. After explaining to them the complaints which this gave rise to from home, and the risk it was entailing of the produce becoming valueless in the market, I asked them why they did not have it weeded out at the proper season, when it might be done at so trifling an expense. The reply was quite characteristic—"We find the crop pays us very well as it is, and why should we take any more trouble with it?" "But," I remarked, "the produce from this cause is not realising the expectations which were formed of it when the seed was given to you free of expense, and at some cost to the State, and it is now becoming a question whether the supply of Gins will be continued. Without them you are aware that you cannot clean this description of cotton, and would you prefer giving up the cultivation of it to taking the trouble that is necessary towards sending it to market in a pure state?" To this they all replied that, under no circumstances, did they wish to abandon the cultivation,—the American cotton was the crop which brought them money, and which paid them best of all, and that they would look upon the loss of it as a great privation.

12. To a question as to whether they would consider it a hardship if an order was issued directing that, at the proper season, they should weed out all the native plants from the New Orleans cotton fields, the answer was—"No, we should not consider it a hardship. If we are ordered we shall do it, and more than that, from what you have told us we shall now do so of our own accord."

13. I very much doubt whether the majority will adhere to this resolution, but I feel quite convinced that if such a mandate was issued, it would not be complained of, and I see no other means by which the end in view can be accomplished.

14. The second clause of the Draft Act of 16th January 1858 will, I imagine, apply to this case, but the point would be less open to question if, after the words "fraudulently mixes or causes to be mixed cotton of a good and bad description of quali-

ty" were added *or of different qualities* "in one bale." There can be no doubt that such an extensive admixture is intentional, and not accidental,—the object being to procure the price of the better for the inferior article; and that it might and would be obviated, if it was to the interests of the parties concerned, was apparent from the fact that I could scarcely observe a single plant of American cotton growing in the native cotton fields. The reason was, that this variety could not be cleaned by the Churka, and its presence amongst the other kuppas would not only delay the cleaning process, and make it more expensive, but would also derange the machine. Here, therefore, where their own interests are concerned, they find no difficulty in preventing the admixture.

15. The enforcement of such an order would not be attended with much trouble to the subordinates concerned. The plants at a certain age present a most marked difference, and a single visit to the fields, at the proper season, would enable the Mamlutdars or Mahalkurries to observe whether it had been complied with; and as an additional security at the ginning time, the seed might be examined at the different villages—the two descriptions being easily distinguished from each other.

16. On the subject of early sowing, I had also a favorable opportunity of ascertaining the views of the cultivators. Out of about two hundred who were present, there was not one who had given the plan a trial, at the same time they were all unanimous in the opinion that it would not be found to answer. On being asked why they came to this conclusion without making the experiment, they brought forward an inhabitant of Havaree who had reserved two of his fields for a perennial crop. He stated that the plants flowered well in April and May, but that when the pods were forming they were attacked by insects, and that they yielded him no produce whatever. From this instance they argued that the same would be the result with all early sown cotton. They attribute the appearance of these insects to the east wind which prevails at that season, and they say that this wind of itself also prevents the cotton from maturing properly.

17. They consider that a particular description of rain or moisture is necessary for the successful sowing of any cotton. It is a sort of drizzle, called by them Hoobi or Wootarie, and is always expected some time in August. The soil is softened by it without being thoroughly soaked (when the latter is the case, they say that the seed is apt to rot).

18. Another objection mentioned to early sowing was, that such cotton was apt to shoot up to a great height, whereas they preferred short and bulky plants, both on account of their being more productive, and also because they afforded greater shelter to their produce, and were less exposed to the wind.

19. The last point urged by them on the subject was, that the picking time should take place when there was the least chance of rain falling, because a single heavy shower was sufficient to destroy the whole crop of a ripe field. I should here mention that the term early was meant by them to apply to sowing fifteen or twenty days sooner than the usual period, that being all the length of time to which their experience extended.

20. From the above it will be seen that at present a strong prejudice exists against early sowing, and that the cultivators will not have recourse to it unless it can be proved to them by experiment that their objections are unfounded.

21. My own opinion is that it will not succeed with New Orleans cotton, for the reason assigned by the natives in the foregoing paragraph. If sown in April and May, it would yield the chief part of its produce in October. I have noted in the margin the fall of rain at this station in that month during the last ten years respectively, and as the supply is derived from the south-east, or what is commonly called the Madras monsoon, the cotton districts have their full share of it. It is the season to which the ryots look forward for the filling of their tanks, and the showers are the heaviest that we experience. Cotton ripening at such a period would run a great risk of being destroyed, and this has proved to be the case in the small experiment to which I referred in my last letter of the 30th ult.

		In.	Cts.
Fall of rain in October	1848...	6	22
Do.	do. 1849...	8	70
Do.	do. 1850...	8	69
Do.	do. 1851...	6	91
Do.	do. 1852...	4	39
Do.	do. 1853...	1	51
Do.	do. 1854...	7	33
Do.	do. 1855...	9	46
Do.	do. 1856...	6	42
Do.	do. 1857...	7	53

22. The Egyptian and native varieties of cotton do not yield their produce so rapidly. If sown at the same period, they will not ripen until December and January, when the rains will have ceased, so that the same objection does not exist to them, and the early cultivation of the latter, if successful, would have one very important advantage (even if its quality were not enhanced), viz., it would admit of the crop being cleaned and exported before the setting in of the monsoon, which is not the case at present, and

there can be no doubt that the article deteriorates from keeping throughout the rains.—I have the honor to be, &c.,

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 13th October 1858.

No. 4256 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

To J. A. CROWE, Esq.,
Acting Secretary to the Chamber of Commerce.

SIR,—I am directed by the Right Honorable the Governor in Council to forward, for the information of the Chamber of Commerce, copy of the correspondence marginally noted, which has taken place consequent on an opinion expressed to the Madras Government by Messrs. Brice & Co. that the failure in the American cotton cultivation is mainly attributable to the seed having been planted at the native seed time (August) instead of in April, the time adopted in the United States.—I have the honor to be, &c.,

Extract of para. 11 with paras. 12 and 13 of a letter from Messrs. Brice & Co., dated 16th June 1858, to the address of the Secretary to the Govt. of Fort St. George.

Letter to the Revenue Commissioner Southern Division, No. 3149, dated the 21st September 1858.

Reply from Revenue Commissioner Southern Division, No. 2620, dated the 5th October 1858.

Government Resolution, No. 3645, dated the 30th October 1858 (communicated to the Revenue Commissioners Southern and Northern Divisions).

Memprandum from the Revenue Commissioner Southern Division, No. 2897, dated the 29th October 1858, with accompaniment.

Government Resolution, No. 4254, dated 20th December 1858 (communicated to the Revenue Commissioners Southern and Northern Divisions.)

(Signed) H. B. ELLIS,
Acting Secretary to Government.

Bombay Castle, 20th December 1858.

Extract of para. 11 *with paras.* 12 *and* 13 *of a letter from Messrs. Brice & Co., dated* 16*th June* 1858, *to the address of the Secretary to the Government of Fort St. George.*

While on this subject, it may perhaps not be out of place to say a few words upon the cultivation of cotton and the comparative failure of the experimental culture. This failure we believe to have been mainly attributable to the seed having been planted at the *native* seed time, viz., August, instead of at the *natural* time adopted in the United States, viz., April. We may mention that our Mr. Brooke tried the following experiments at Cochin. He sowed the Egyptian Sea Island seed every week from April to August, with the following results:—

Sown previous to 1*st May.*—All came up at same time, viz., about 6th May, was eight inches high by 6th June, grew during the following six months of monsoon to the height of *twelve feet*, and bore pods of long stapled cotton till the following March.

Sown about 1*st June.*—Came up in two or three days, grew quickly but weakly, attained a height of about six feet, but could not stand the hot dry weather of December.

Sown about 1*st July.*—Came up quickly, but did not attain a height of more than four or five feet.

Sown after 1*st August.*—Did not attain a height of more than two feet six inches, was weak and miserable, and would not live without watering.

12. These experiments lead to the belief that early sowing is imperatively necessary, although, strange to say, it does not appear to have been ever tried, except in one solitary instance by Dr. Wight at Coimbatore, and which, from exceptional circumstances, turned out a failure.

13. It is perfectly certain that India can produce a very superior class of cotton, and that private enterprise would engage in the cultivation if the means of transport were at hand; at present it does not answer to purchase very fine cotton, as the damage on the way down is so great as to neutralise in a great measure its superior quality.

No. 3149 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

To J. D. INVERARITY, Esq.,
Revenue Commissioner Southern Division.

SIR,—I am directed to forward herewith an extract, paras. 11 to 13, of a letter from Messrs. Brice & Co., dated the 16th June last,* from which it will be seen that they are of opinion that the failure in the American cotton cultivation is mainly attributable to the seed having been planted at the "*native* seed time" instead of at the "*natural* time" adopted in the United States.

* To the address of the Secretary to the Government of Fort St. George.

2. Government are of opinion that the experiment of sowing at the same season as in America might be tried on a small scale in every collectorate under this Presidency, just as they lately directed the question of irrigating cotton to be submitted to a practical test. Before, however, adopting this measure, His Lordship in Council desires me to request that you will obtain and submit the reports of Dr. Gibson and Dr. Forbes on the point noticed by Messrs. Brice & Co.—I have the honor to be, &c.,

See Govt. Resolution, No. 2069, dated the 19th June 1858.

(Signed) H. YOUNG,
Chief Secretary to Government.

Bombay Castle, 21*st September* 1858.

No. 2620 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

From J. D. INVERARITY, Esq.,
Revenue Commissioner Southern Division,

To H. YOUNG, Esq.,
Chief Secretary to Government.

SIR,—I have the honor to acknowledge the receipt of your letter, No. 3149, dated the 21st ultimo, with accompaniment, and, as requested in para. 2 thereof, to subjoin, for the information

of the Right Honorable the Governor in Council, the reports of Drs. Gibson and Forbes on the subject of sowing the American cotton at the same season as in America, viz., in April.

2. Dr. Gibson writes :—

"2nd. I may state that the case of the Malabar Coast and Cochin, where the experiment of early sowing is described as having been with success tried, is an exceptional one, dissimilar in circumstances of soil and climate to the other districts of Western India.

"Sloping low hills near the coast having a gravelly or laterite soil, frequently showers in April, and most generally a saturating shower or two previous to the middle of May, and the land daily cooled by a sea breeze obtained at first hand, are all of them contingencies likely to lead to the success of the experiment as made at Cochin.

"In fact, I have no hesitation in offering the opinion which, if I mistake not, I have already done in some of my former reports, that cotton sown in such ground, in any part of the Malabar Coast, each seed hole having a pot of water poured into it, would give a strong healthy plant well calculated to resist the strength of a monsoon which must be fatal to one recently sprouted.

"3rd. I have myself seen on the hill seaward of Murwagon or Moregam Fort, in the Goa country, on 28th December 1845, upland cotton growing in a state then wild and perfectly uncared for, nevertheless strong in growth, and showing boles of which any planter might have been proud.

"It cannot, however, be said that we have any one of these favorable circumstances in other parts of Western India. Therefore I argue that this experiment, while affording excellent grounds for an extension of the cultivation in such situations in Malabar, can lead to no inference in favor of success elsewhere.

"4th. If my Garden Report for 1842 (contained in a printed compilation published by the Horticultural Society) be referred to, it will be seen that in paras. 9 and 10 I take some pains to point out how much injury has often been done, and unnecessary expense incurred, by hasty conclusions, drawn from partial premises ; and again in para. 10, I say in relation to this very product—'a person unacquainted with the general features of this country, and with the great modification of climate (irrespective of latitude) caused by our north-west wind blowing over such an extent of continent, as compared to the sea it has to pass over,

might, from the result of the above trial, look on the success of American upland cotton as certain, and recommend it accordingly.

"5. Now, the whole of the land in our cotton districts is, as is well known, by the middle of April, cracked and burned up by the fierce heat of the sun; and this continued heat is not dissipated, nor is the soil formed again into a homogeneous mass until it has received the heavy rains of June and July. I therefore maintain—

"6th. That to attempt to sow cotton in April, even were the space destined for it flooded with water by artificial means, is hopeless; a stunted plant may be obtained, but it will be burned up at its leaves and roots, and will never become healthy.

"7th. It is for this reason that I do not advise even a general experiment in the measure, as respects the cotton districts of our Presidency. Indeed, I am under the impression, in as far as an imperfect recollection of the events which occurred twenty-six years ago can assist me, that the plan was tried in the experimental cotton farm at Danda in the Broach collectorate, and that Mr. Martin, the Superintendent, had a well dug and built for this very purpose. It is possible that the records of Government may furnish some information on this subject.

"8th. In case that Government should determine in trying the experiment on a small scale, I have, in the ground at Hewra, some fields of brown soil, which can be irrigated, and thus give the experiment rather a better chance of success than it could have in the regular black cotton soil. The experiment also would have this advantage, that no expense need be incurred in carrying it out."

3. Dr. Forbes writes:—"I have at present under observation samples of early cotton, consisting of Egyptian, American, and native varieties, sown at Hooblee in the month of May last. I examined the plants a few days ago, and found pods forming upon both the Egyptian and native plants; and I have had sent me today a small supply of cuppas, the first produce of the American variety. The staple is not longer than that of the usual crop, and the fibre is apparently weaker. It is scarcely possible, however, to form an opinion from so small a specimen, nor indeed until the whole of the crop has been picked; after which I shall have the pleasure of forwarding samples for comparison with others of the usual produce.

"I may mention, however, that the present small experiment

will not be conclusive, whatever the result may be. At the time of sowing, I was absent on other duty, and the spot of land selected was in a more sheltered situation than I could have wished. Moreover, it is by no means certain that the carcoon in charge did not indulge the plants with a little water. Allowing such however to have been the case, as the season (with regard to rain) has been most unfavorable, I consider the appearance of the plants, when I last examined them, was sufficiently satisfactory to encourage a repetition of the experiment upon a larger scale, and I should be glad to obtain permission to undertake it next season."

4. As bearing on the subject of this reference, I beg also to subjoin an extract from a communication, No. 725, dated 25th ultimo, from Mr. Seton Karr, Collector of Belgaum. He writes:—"Early planting, from the middle of April to the end of May, I scarcely need tell you, has never been tried. Those months in the cotton plains are perhaps the hottest of the year; and the seed might as well be put into an oven as into the ground at that time. When I receive the next supply of Egyptian seed, I will endeavour however to persuade the ryots to sow it a month earlier (say in July) than the usual period."

5. From the foregoing it would appear that the early sowing of cotton seed must, to give satisfactory results, be dependent on an early fall of rain, and on the soil being in a sufficiently moist and cool state to receive it.—I have the honor to be, &c.,

(Signed) J. D. INVERARITY,
Revenue Commissioner, Southern Division.

Poona, Revenue Commissioner's Office, 5th October 1858.

No. 3645 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

Copy of the Resolution passed by Government on the foregoing letter.*

Government are satisfied that it is hopeless to expect that, as a general rule, cotton seed in this Presidency can be put in the ground in the month of April with any prospect of success.

* Communicated to the Revenue Commissioners, Southern and Northern Divisions.

2. But so far as His Lordship in Council has the means of forming an opinion, it would appear very desirable that the sowing of American cotton should take place as early as the ground is in a fit state to receive the seed, and it is possible that where means of irrigation exist, the ground may be brought to such a state a little earlier than where the natural fall of rain is alone depended on. The attention of the local officers may be directed to this point.

3. The experiment suggested by Dr. Gibson in the 8th para. of his letter should be tried, and the result reported to Government.

4. Dr. Forbes should also be requested to renew his experiments, as proposed by him.

(Signed) H. YOUNG,
Chief Secretary to Government.

Bombay Castle, 30*th October* 1858.

No. 98 OF 1858.

To J. D. INVERARITY, Esq.,
Revenue Commissioner, Southern Division.

SIR,—I have the honor to state that, having recently paid a visit to the experimental cotton fields alluded to in my letter of the 30th ultimo, No. 91, I found the produce had suffered to such an extent from the late fall of rain, that probably any repetition of the experiment may be deemed unnecessary, and the question submitted by Messrs. Brice & Co. as to the benefit which might be expected to result from earlier sowing, may be considered as disposed of in as far as this part of the country is concerned.

2. As a specimen of the article will best exemplify the damage which unpicked cotton sustains from rain, I have taken the liberty of forwarding to your address, by banghy parcel, a few pods which I picked for that purpose.

3. I have also enclosed in the same packet a sample of the early sown American cotton (picked before the rain fell), and along with it a specimen of the same variety sown at the usual period. A comparison will decide the superiority of the latter, more especially as regards strength and soundness of fibre, and from this it may be inferred that the season at present resorted

to is (with respect to quality also) best suited to the culture of the plant in this country.

4. Contrary to the expectations formed on my previous visit, I found that the early sown Egyptian cotton had also ripened, and that its produce had suffered from the rain in the same manner, as will be seen from the sample I have sent; and I may mention that not only was this the case in both instances with respect to the pods which had burst, but also with those which had only partially filled. The moisture appeared to have soaked through the capsules, and stained the contents of even the smallest bols.

5. The native cotton sown at the same time as the above (viz., on the 11th May) was more backward, only a few of the plants having flowered. It appears to require a longer period to come to maturity, and for this reason is not open to the same objection as regards early sowing. It will yield its crop about December, a season at which there is very little chance of rain falling, and it remains to be seen what the quantity and quality of the produce will be as compared with that sown at the usual period. The advantage of early sowing with this variety would be that the crop could be cleaned and exported before the ensuing rains set in, which is not the case at present.—I have the honor to be, &c.,

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 25th October 1858.

No. 2897 OF 1858.

Submitted for the information of Government in continuation of the Revenue Commissioner's letter No. 2620, of 5th instant. The samples of cotton alluded to by Dr. Forbes will be transmitted on receipt.

2. With the view of noting the result of early sowing as regards the indigenous variety, Dr. Forbes has been requested to report at the proper time on the quantity and quality of the crop adverted to in his concluding para.

(Signed) J. D. INVERARITY,
Revenue Commissioner, Southern Division.

Poona Districts, Revenue Commissioner's Camp, Nimbool, 29th October 1858.

No. 4254 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

Copy of the Resolution passed by Government on the foregoing Documents.

Copies of the correspondence may be forwarded to the Madras Government, in reference to the letter of Messrs. Brice & Co. to their address.

2. Copies may also be forwarded to the Chamber of Commerce at Bombay, for their information.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 20*th December* 1858.

No. 4269 OF 1858.

TERRITORIAL DEPARTMENT, REVENUE.

To J. FLEMING, Esq.,
Chairman of the Chamber of Commerce.

SIR,—With reference to my letter marginally noted, I am directed to forward for your information an extract (paragraph 3) from a report by the Superintendent of the Cotton Experiments at Ahmedabad, dated the 25th October last.—I have the honor to be, &c.,

No. 4083, dated 8th Dec. 1858.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 21*st December* 1858.

Extract para. 3 *from a report by the Superintendent of the Cotton Experiments at Ahmedabad, dated* 25*th October* 1858, *No.* 45, *to the address of the Collector of Ahmedabad.*

Para. 3. Early sowing I have tried in the months of April and May, but the seeds do not germinate. When sown and irrigated in these months, the plants come up a few inches, and are then blasted by the hot winds and great heat. It is during the early part of the monsoon, after a few heavy showers of rain have

saturated the earth and cooled the air, that the seeds come up to maturity; the plants may then be left throughout the ensuing hot months without injury; but the yield of the crop in the second year will be much less than that of the first. In the neighbourhood of Ahmedabad, I have noticed cotton fields kept up for two and even three years without being uprooted; after the first year's crop is gathered in, the plants are cut down to about six inches from the ground, the second and third years the same operation is repeated, and the consequence is that the yield in each successive year becomes less and less, and the pods dwindle to little berries. The system saves expense and labour, and the deteriorated cotton is only fit for certain domestic purposes. The fields are well enclosed to keep cattle out. I have on hand two experimental cotton fields, one containing Sea Island, the crop of which is being gathered in, and the other Indigenous, which is flooded occasionally. Regarding these I shall report fully hereafter.

No. 256 OF 1859.

TERRITORIAL DEPARTMENT, REVENUE.

To R. RYRIE, Esq.,
Chairman of the Chamber of Commerce.

SIR,—With reference to the conclusion of paragraph 2 of Mr. Chief Secretary Young's letter to Mr. Fleming, marginally quoted, I am directed by the Right Honorable the Governor in Council to annex, for the information of the Chamber, copy of a letter from the Collector* of Candeish, No. 2275, dated the 21st ultimo, containing his observations on the subject of the grant of rewards to ryots cultivating the largest and best fields of superior cotton, and on the early planting of cotton seed in that collectorate.

No. 2995, of the 10th September 1858.

2. I am desired to state that Government fully concur in Mr. Mansfield's remarks.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 22nd January 1859.

* To the address of the Revenue Commissioner, N. D.

No. 2275 OF 1858.

From S. MANSFIELD, Esq.,
Collector of Candeish,

To E. G. FAWCETT, Esq.,
Revenue Commissioner, Northern Division.

SIR,—I have the honor to acknowledge the receipt of your memorandum, No. 1980, of the 12th October last, requesting any remarks I may wish to offer on the 2nd para. of the Government Resolution No. 2994, of 10th September 1858.

2. The para. in question refers to two subjects,—1st, Whether the distribution of seed, accompanied with the offer of reward to the ryots who shall cultivate the largest and best fields of the superior cotton has been attempted, and with what success? 2nd, Whether the system of early planting, say from the middle of April to the end of May, has been extensively "tried, and whether it has proved more successful than the native system, which prevails in the Dharwar districts, of sowing in July and August, when the soil has become surcharged with moisture?"

3. On the first point I beg to observe, the great difficulty in the measure proposed is the great extent of the country over which cotton is cultivated. Candeish consists of sixteen (16) talooks, with an area of upwards of 12,000 square miles. With the exceptions of Baglan and Pimpulnair, cotton is grown in every district, and ripens in all about the same time, the middle of November. If seed were distributed and rewards offered throughout the province, it would be impossible for myself and assistants to visit all the cotton fields over so vast an extent of country and adjudge rewards for the best, supposing we had nothing else to do, and were all qualified for the task, neither of which contingencies, I need scarcely observe, are likely ever to occur. I am therefore of opinion, it would not only be injudicious to offer rewards, but absolutely injurious, as there would be no guarantee whatever that the growers of the best cotton would receive the reward, unless the scene of operations was very limited indeed, and confined to a very few villages in one or two localities.

4. Another difficulty to be considered is, that the ryots will not plant any cotton which they are not satisfied is adapted to the climate. This of course cannot be wondered at, for if the cotton turns out unsuitable, they not only lose all their labour, but the

value of a crop they might have grown of native cotton, linseed, or any other produce which would have yielded them a certain handsome return.

5. The ryots are willing enough to plant anything which is likely to grow well and yield good return. About a month ago I ascertained from a sowkar, a description ot cotton had been imported a few years since from Meywar, and planted in considerable quantities by the ryots themselves, without any other inducement than that of self-interest. From the little I know of cotton, I should say this description was inferior to the Candeish variety. The staple was coarse, short, and adhered very tenaciously to the seed—but the colour was magnificent. It is now exported to Bombay as Candeish cotton.

6. On the second point I beg to observe, cotton in Candeish is always sown in June or very early in July, after the ground has been well saturated by the first heavy fall of rain.

7. No produce of any kind can be sown before that takes place—the seed would not sprout and would be burnt up.

8. In all countries in India where the soil is black, the cotton is sown in July or August, *after* the heavy rains have fallen, and the moisture has penetrated the soil, and the surface is comparatively dry. If the seed were sown before or at the commencement of the rains, it would rot and come to nothing. In Candeish, the soil in which cotton is sown, though darkish, is of a light and more sandy texture than most black soils, and does not retain the moisture long, and therefore admits of being planted with cotton earlier than in Guzerat and the Southern Mahratta Country.—I have the honor to be, &c.,

(Signed) S. MANSFIELD,
Collector.

Candeish, Collector's Camp, Chopra, 21st December 1858.

No. 806 OF 1859.

TERRITORIAL DEPARTMENT, REVENUE.

To J. A. CROWE, Esq.,
Acting Secretary to the Chamber of Commerce.

SIR,—In continuation of my former correspondence, a copy of which was forwarded to you with my letter No. 4256, dated the

20th December last, I am directed by the Right Hon'ble the Governor in Council to annex transcript of a Memorandum, No. 335, dated the 14th ultimo, from the Revenue Commissioner Southern Division, and of its accompaniment, and to state, for the information of the Chamber of Commerce, that the result of the further experiment in the early sowing of indigenous cotton will be communicated to them in due course.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 4th March 1859.

TO THE SECRETARY TO GOVERNMENT, BOMBAY.

SIR,—The interest taken by the Government in the question of Cotton Cultivation, induces me to address you respecting some experiments directed by me to be tried last season at Hoobloe in Dharwar, with the view of settling the question of *early planting*. I have not yet the results in weight of cotton picked, as the plants are still in full bearing, but sufficient cotton has been picked to justify the renewal of the experiment. Thus there was picked from four acres of Egyptian Sea Island Cotton:—

Acre.	On 26th Nov. lbs.	15th Dec. lbs.	1st Jan. lbs.	Total to 1st Jan. lbs.
1st Planted Native way... ...	12	56	74	142
3rd „ „	14	27	40	81
				——223
2nd 1 foot distance	30	51	102	183
4th 2 „ „	12	28	61	101
				——284

The above weights are for Seed-Cotton.

The first and second acres were planted, or rather sown, about the 5th June, and the third and fourth acres from 10th to 15th June.

From an acre and a quarter planted by our firm in *August* 1856, the total weight of Egyptian Seed-Cotton picked *during the whole season* was only 106 lbs., or equal per acre to only 85 lbs., or less than the quantity picked in *fourteen days* from the best acre of the early planted experiment.

I have but little to remark upon the planting of the four acres in question, except that the seed sown at one and two feet dis-

tance respectively was put into holes from three to four inches deep, while the other two acres were sown in the usual Native way in drills. There was no water given to the plants at any time.

I have now to draw your attention to another experiment of a more comprehensive character, carried on in the neighbourhood of our Office at Hooblee.

Two pieces of land, one of *red soil*, and the other of *black soil*, were prepared for sowing at the latter end of April, and the seed was sown, *one row daily*, from the 11th May to 22nd June, and every four days, from 26th June to 21st August. The three descriptions of Seed—the Native, the American, and the Egyptian, were sown in separate rows in both descriptions of soil. The following reports came to hand at the following dates :—

21*st April.*—All people tell me that Egyptian and American Cotton will not prosper on red soil, but as you desire it as a trial, I must comply with your instructions.

23*rd July.*—The plants earliest sown were about one foot above the ground, and on *every day* there were some seeds that had vegetated ; the largest average were those sown on the 16th May and 23rd and 27th May.

7*th August.*—Early sown plants were from 18 to 30 inches high ; those sown after 6th June were from three to six inches high only. Egyptian Cotton appears to grow best in *red soil.**

		Inches.
5*th September.*—Early sown plants were from		17 to 54 high.
Sown after 6th June	,, ,,	13 ,, 22 ,,
27*th* ,, Early sown plants	,, ,,	20 ,, 72 ,,
Sown after 6th June	,, ,,	16 ,, 23 ,,

The Egyptian and American plants in full blossom.

30*th September.*—The Egyptian plants all look most healthy, some above 70 inches high, and one inch diameter at the bottom of the stalk.

Native plants.—No Native plants ever looked so high and healthy as ours.

American plants.—The pods are opening, which is not desirable, as the Cotton will be spoiled by rain in October.

3*rd January.*—Native Cotton plants have buds, but no flowers, yet the trees have grown large.

2*nd February.*—Cotton plants in the four acres in good order.

* See Native opinion above.

Those sown in Native way are one to one and a half feet high. There is plenty of Cotton on them.

I expect shortly to receive fuller particulars of weight of Cotton picked, which I shall have the honour of forwarding to the Government; meanwhile I venture to express an opinion (although contrary to the best opinions hitherto expressed on the subject), that it is clearly demonstrated that early sown Cotton will not only vegetate but flourish in districts distant from the sea-coast.

I beg further to hand a few remarks, the result of having sown the plant under all conditions during my residence in India during the last six years, and have the honour to be, &c.,

(Signed) H. BROOKE.
(A. C. BRICE & Co.)

Bombay, 10*th March* 1859.

SUGGESTIONS REGARDING THE BEST MODE OF CULTIVATING EXOTIC COTTON WITH THE VIEW OF PROMOTING ITS EXTENDED CULTURE.

1. I would suggest that patches of land of any *deep* soil, whether red or black, should be taken *without delay* in various places in the Bombay Presidency, but especially within a convenient distance of the proposed lines of the G. I. P. and Baroda Railways.

2. I would recommend that the patches of land should be as nearly 50 acres as possible.

3. That a Native Writer, who can write English, should be appointed to take charge of each experiment, at a salary not exceeding thirty Rupees per month, and that he should have a youth as Assistant at ten Rupees per month, who would furnish reports in case of the sickness of the Native Writer.

4. That the several Collectors of the Districts should be invited to co-operate as much as their multifarious duties will admit, and should be requested to appoint suitable persons as Native Writers to the experiments, but that they should be exonerated from the thought and trouble incidental to looking after the experiments themselves or by their Assistants.

5. That Weekly Reports should be furnished by the Native Writers in charge, direct to the Secretariate in Bombay, where an intelligent Native Writer should be placed in charge of the Reports.

With reference to para. 8 of these papers, it may be observed that from subsequent experiments it would appear more economical to till the whole of the ground thoroughly, burning the grass and weeds ; as their growth at certain periods is found to entail considerable trouble in removal, particularly if the Cotton is at all backward.

H. BROOKE.

Bombay, 13*th February* 1860.

6. With the view of having the experiments and reports properly carried out, I shall be happy (if the Government will allow me) to attend, from time to time, at the Secretariate, and furnish such instructions to the Native Writer in charge as may seem desirable.

7. By the above plan, the desultory character of the former experiments would be avoided, and, if successful, the experiments would furnish data upon which Europeans would at once proceed to take large Cotton Farms, without the loss of time necessarily attendant upon their trying experiments for themselves.

Mode of Cultivation.

8. *Digging the Ground.*—It does not appear to me necessary that the ground should be dug all over, but merely in lines four feet apart, to a depth of about eight inches, the clods being left in large lumps until the first shower of rain, when they can be broken up and the seed sown; the digging would probably not be expensive, as a pointed mamootie will enter almost any kind of soil, however hard and burnt up. Four men should be employed at the work on each 50 acres, and the length of lines dug each day should be carefully recorded.

9. *Procuring the Seed.*—It is absolutely essential that the seed should be new and cleaned from the Cotton as lately as possible before sowing,—as cleaned seed, if kept in a body and only in the slightest degree damp, heats, and becomes spoiled in a few days.

10. *Preparing the Seed.*—The seed should be prepared for sowing in the way customary in the district, usually by wetting it and rubbing it up with dry earth, to prevent the down causing the seeds to adhere to each other.

11. *Sowing the Seed.*—One man should remove with a broad mamootie the earth to the depth of about three inches, at distances of two feet from each other; a woman should follow with the seed, and should drop four or five seeds on the place where the earth has been removed, and which would be about eight inches square; another man should then follow, and cover the removed earth over the seed with a mamootie.

12. *Time of Sowing.*—The seed should be sown as early as possible after the first showers of rain have enabled the clods of earth to be broken up fine. The distance of two feet might be marked on the handle of the mamootie, measuring from the blade, in order to enable the first coolie to measure the distances pretty accurately.

13. *Weeding.*—The sowing being completed, there would be nothing to do until the Cotton and weeds began to come up together. It is essential that weeding should be done as carefully as possible, so as not to injure the young plants, and *women* should be employed to weed the plantation by *hand*, in whichever way is usual in the district. Weeding will, probably, be required to be done every fourteen days or three weeks, until the plants are sufficiently large to render it unnecessary; but it will be sufficient to weed the rows only, as the intermediate spaces, not having been dug up, the growth of grass will not as yet be considerable; when it is so, it might be cut and employed to feed cattle, for which purpose it would probably realise more than the cost of cutting and carrying.

14. *Thinning.*—When the plants are on the average twelve inches high, or have, say six to eight leaves, it will be necessary to pull up the weakest surplus plants, leaving only two of the best plants to each space of two feet; the pulled up plants can be immediately replanted (if there is any vacant ground) at distances of one foot from each other, but in rows of four feet apart as before. At the expiration of ten days more, the worst of the two plants remaining in each space of two feet can be pulled up and transplanted as above directed. The thinning and transplanting should be effected in wet weather, and when the soil is saturated with moisture.

15. *Picking.*—The first picking should take place ten days after the first ripe boll appears in the field, the second picking seven days later, and the subsequent picking twice a week, as long as there is sufficient Cotton left to make it worth the labour. Each picking should be weighed as brought in, and all the defective bolls picked out and kept separate from the perfect bolls.

16. *Pruning.*—When the bolls cease to open plentifully, and it becomes doubtful if the quantity picked is remunerative, all the remaining bolls should be pulled off and dried in the sun —they will open in from three to six days, and the Cotton can be picked out. It will be found to be but little, if at all, inferior to that picked direct from the plants. When all the bolls are thus picked off, the plants should be topped with shears to three feet high, and the side branches sheared off to within nine inches of the stem.

17. *Second Crop.*—The plants will immediately begin to shoot out again, and will produce a second crop in three months

from the time of pruning. The second crop can be picked as before, until it is time to break up the ground again for another crop.

18. I would not recommend any experiments to be tried with the common Native Cotton, as the quality is at best too inferior to make it worth the labour of extra cultivation. I would, therefore, suggest that only the Egyptian Sea Island and American should be tried.

19. I shall be happy to wait upon any Member of Government who may take an interest in the subject, and reply to any objection that may be urged against the system I propose.

20. The time for preparing the ground is now rapidly approaching, and I would venture to suggest that the Government should come to as early a decision as possible on the subject, in order that the present season should not be lost.

In conclusion, I may be permitted to express my conviction that Cotton, if properly cultivated, will, in India, prove to be the most profitable agricultural occupation that can be entered upon, and that in a very few years India will successfully compete with the United States.

I trust that the Government will pardon me the liberty I have taken in addressing them so freely upon a subject of such general interest, and have the honour to be, &c.,

(Signed) H. BROOKE.
(A. C. BRICE & Co.)

FOUR ACRES EXPERIMENT AT HOOBLEE.

	Sown about 5th June. 1st Acre Native way.	2nd Acre 1 foot distance.	Sown about 15th June. 3rd Acre Native way.	4th Acre 2 feet distance.
Picked.				
November 26th....	12	30	14	12
December 15th....	56	51	27	28
January 1st.....	74	102	40	61
	142	183	81	101
Equals ¼ of Clean Cotton	35	46	20	25

Contrast of Egyptian against Native Cotton—		Per Acre.
100 lbs. of Egyptian Cotton at.....	9*d.*	
Less charges from Field to Spinner...	2¼	
at	6¾	£2 16 3
Less cost of Cultivation.....		0 12 0
Return per Acre		£2 4 3
	d.	
70 lbs. of Native Cotton at.....	5½	
Less charges from Field to Spinner ..	2	
at	3½	£1 0 5
Less cost of Cultivation.....		0 6 0
Return per Acre		£0 14 5
Difference in favour of Egyptian		£1 9 10

Or three times the net profit on Egyptian against Native.

No. 1061 OF 1859.

REVENUE DEPARTMENT.

Memorandum.

Dated 10th March 1859, regarding the Culture of Cotton.

The Acting Secretary to Government presents compliments, and begs to forward to Mr. H. Brooke, with reference to his letter marginally quoted, copy of a Report from Dr. Forbes, the Superintendent of the Cotton Gin Factory at Dharwar, No. 20, dated the 12th ultimo, with a request to be favoured with any remarks he may have to offer on it.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 22*nd March* 1859.

No. 20 of 1859.

To J. D. Inverarity, Esq.,
Revenue Commissioner, Southern Division.

Sir,—In reply to your letter No. 2898 of 1858, and in continuance of my report to your address dated 25th October 1858, I have the honor to state that the experiment tried, of early sowing with the native variety of cotton, has also proved a failure.

2. The plan has been simultaneously tried in different localities, the early sowing took place in May and June, and in the neighbourhood of each a small quantity of the same seed was sown at the usual season, viz., August and September, with the view of being able to compare results.

3. The plants from the early sown seed appear to have exhausted themselves in running to wood; they attained an average height of five feet, but their produce was not equal in quantity to one-third of that of the small plants which grew beside them from the seed sown at the usual period. Besides this, they seemed unable to nourish their pods, so that the young 'forms' or bolls withered and dropped away before they had attained half their size. The Cotton also where it had matured was not equal in length and strength of fibre to the usual produce.

4. In addition to what has been reported in the former communication above alluded to, I have now only to add on this subject, that Egyptian cotton, whether sown early or late, does not seem adapted to these districts. It has so disappointed the ryots, that of their own accord they will have nothing further to say to it, for whilst the plant itself continues to look healthy and strong, the contents of the pod, both at the period of its ripening and earlier, are attacked by what they call "wind blight," but what in reality is an insect, which causes them to discolour and wither up, so that they cannot be picked. I have samples of the produce in this condition now by me, which can be forwarded for inspection if required, as well as specimens of the young bolls which have withered and fallen away from the early sown native plant as above mentioned.

Results.—The conclusion to be drawn from the experiments of last season may be summed up as follows:—

New Orleans.—1. Early sowing will not succeed with any description of Cotton the produce of which ripens at a period when rain may be expected to fall, and this has proved to be the case

with both New Orleans and Egyptian Cotton in the Dharwar districts.

2. If it were not for this objection, New Orleans Cotton might be grown at the above season with advantage, in so far as that the crop might be cleaned and shipped before the monsoon. It has been observed, however, that the early produce has not been superior (either as regards quantity or quality) to that from seed sown at the usual period; experience shows that the most advantageous season for sowing this crop is in August, and the earlier it takes place in that month the better. At the same time the soil must be in a proper condition as regards moisture; if too wet the seed will rot.

Egyptian.—3. Egyptian Cotton sown at all seasons has hitherto proved a failure, for the reason above mentioned.

Native.—4. Early sown native Cotton has not succeeded, owing to the plant having run to wood, but possibly pruning at the proper season might obviate this objection, and I would, therefore, recommend a further prosecution of the experiment. If successful, much advantage would ensue. At present the slow process of the churka is the only means by which it can be cleaned, accordingly none of the crop leaves the country until after the monsoon, and it suffers very materially from moisture during that period.—I have the honor to be, &c.,

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 12th February 1859.

No. 335 OF 1859.

TERRITORIAL DEPARTMENT, REVENUE.

Submitted for the information of Government, with reference to para. 2 of the endorsement from this office, No. 2897, dated 29th October last. The result of early sowing has been, it will be seen, a failure in the case of each and every variety.

2. The Egyptian cotton, whether sown early or late, has altogether failed in these districts.

3. The Revenue Commissioner approves of Dr. Forbes's pro-

posal to continue to prosecute his experiments on early sown indigenous cotton, and he has informed that officer accordingly.

(Signed) J. D. INVERARITY,
Revenue Commissioner, Southern Division.

Revenue Commissioner's Camp, Belgaum, 14th February 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—I have the honour to acknowledge receipt of your Memorandum, No. 1061 of 1859, and dated yesterday, enclosing a report from Dr. Forbes respecting the experiment of early planting.

2. I have read the report with much interest, as it doubtless relates to the experiment tried by ourselves and referred to in my communication of 10th March.

3. The result thus indicated is so different from that which I had reason to expect, that I must reserve my opinion as to its merits until I have the particulars of weight of Cotton picked, and see the Cotton itself which has been produced.

4. I am disposed still to believe, that notwithstanding this very unfavourable report, early planting will, by steady perseverance, lead to the desired result; and I would respectfully submit, for the consideration of Government, whether they will be disposed to offer any encouragement to private individuals to engage in these experiments, particularly as from the mass of evidence against their ultimate success, Government may be unwilling to pursue the experiments themselves.

5. It could hardly be expected that private individuals could be induced to carry on this experimental cultivation at considerable risk of loss, without the hope of some ultimate remuneration.

6. I would propose that the inducement should be supplied in the following form:—The Government might guarantee to a Society that I think I could establish, an annual bonus of four annas per acre upon all lands brought under cultivation with other than the ordinary Native Cotton, whether cultivated by themselves or others, for the term of twenty-one years. Such bonus to attach only to such lands as should be sown with exotic Cotton before the 15th July in each year.

7. If the experiments prove a failure, the Government will incur no expense whatever, but, if otherwise, it would only be just that those who incur the trouble and expense of the cultivation, and diffusion of the data, should participate in the general benefit which would be derived by the public at large.

8. The course I propose would, I think, tend to bring the question to a practical issue, as, by this means, private energy would be enlisted in its favour in the only available practical form—that of self-interest.

9. A very moderate amount of success would induce such a Society to persevere in their efforts, while individual attempts would be abandoned at the first serious (though it might turn out ultimately only temporary) failure.

10. It may be inferred from the foregoing remarks that I have still considerable confidence in its ultimate success, but I cannot blind myself to the respectable testimony that has been brought against it, or to the difficulties that invariably present themselves in endeavouring to carry out a new system.—I have the honour to be, &c.,

(Signed) H. BROOKE.

Bombay, 23*rd March* 1859.

No. 1192 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.,
Bombay.

SIR,—I am directed to acknowledge the receipt of your letter, dated the 10th instant, and to return to you the thanks of the Right Honorable the Governor in Council for your interesting paper, which, with Dr. Forbes's report on early sown Cotton, and your further remarks contained in your communication of the 23rd idem, will be printed and circulated for general information.

2. His Lordship in Council cannot consent to foster particular modes of cultivation by special exemptions and privileges, being convinced that any conclusions based on the result of such culture must be fallacious.

3. He will, however, gladly offer every facility for the collection of data, such as you suggest. The result of the experiments hitherto tried is not such as to warrant their extension on a large

scale, but it is desirable that further trials should be made this year, which Drs. Gibson and Forbes, and Mr. Daley, will be directed to carry out in the localities within reach of their supervision.

4. If you will prepare forms of Statements for recording the results, uniformity will be secured, and comparison will be easy. The periodical returns which you propose may be forwarded to the Secretariate, and will be there compiled.—I have the honour to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 30th March 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—I have the honour to acknowledge receipt of your letter, No. 1192 of 1859, and having now received full accounts of the result of the experiments tried in Dharwar, I have the honour to submit them.

The result of the daily sowings appears to me particularly interesting. The Cotton picked from the rows sown during a period of fourteen days for the early sowing, and in periods of one month for the later sowings, have been kept separate, and present the following results up to 21st March :—

	Black Soil.				Red Soil.		
	Egyptian.	American.	Native.		Egyptian.	American.	Native.
Sown daily.	Rows. Tolas.	Tolas.			Tolas.	Tolas.	
11—25 May ...	14	132	183	Not kept separate; the pickings were so small.	240	175	Not kept separate; the pickings were so small.
26—23 June...	14	60	65		165	71	
	14	60	65		165	71	
24—22 July ...	14	41	81		100	60	
	14	41	81		100	60	
23—22 Aug....	14	60	50		80	39	
	14	60	50		80	39	
Tolas...		454	575		930	515.	
at 40 per lb.		11	14	4	23	13	3¼

Each row being 20 feet long, and the rows being two feet apart, an acre being 210 feet square would give 10 rows long by 105 rows broad, or say equal to 1,050 rows. Basing a calculation therefore upon the result of the earliest sown fourteen days in each instance, would give the following results :—

	Egyptian Cotton.					Per Acre.	
	Rows.	Tolas.	Rows.	Tolas.		Kupas.	Cotton.
Black Soil, if	14 :	132 ::	1,050 :	9,900 ÷ 40	=	250 lbs. or	83 lbs.
Red Soil	14 :	240 ::	1,050 :	18,000 ÷ 40	=	450 ,,	150 ,,
	American Cotton.						
Black Soil.....	14 :	183 ::	1,050 :	13,725 ÷ 40	=	343 ,,	114 ,,
Red Soil.....	14 :	183 ::	1,050 :	13,125 ÷ 40	=	328 ,,	109 ,,

The quantity obtained from the Native seeds is so inconsiderable as not to deserve further notice.

It appears, therefore, that Egyptian should be sown in red soil by preference, but as regards American, it is matter of indifference which soil is made use of; it may be worth while to revert to the Native opinion that neither Egyptian nor American would flourish in *red soil.*

The average quantity of Native or American Cotton obtained per acre in Dharwar does not exceed 60 lbs. of clean or rather dirty Cotton.

It appears, therefore, sufficiently proved (as far as so small an experiment would permit) that the earlier the Cotton is sown the better.

The second experiment of early sowing at Hoobleo, was of three acres, sown in *June*, and one acre sown in September, as Natives usually plant, and the result of the three acres sown in June is as follows :—

Sown 5—15 June,	Native mode in drills ..	216	
,, ,, ,,	at 1 foot distance.....	185	
			401
,, 10—20 ,,	Native mode in drills...	151	
	at 2 feet distance	184	
			335
	Kupass or Seed Cotton....		736 lbs.

This produce of 736 lbs. I have had sorted as follows :—

1st quality, perfectly sound, Kupass 73 per cent., produced 33.70 per cent. Cotton ; 2nd quality, discolored, 14½ per cent., and 3rd quality, damaged by Bollworm, 12½ per cent., produced 20 per cent. Cotton—Total 100 ; or an average of say 31 per cent. of Cotton, or nearly one-third, or say 228 lbs. of clean Cotton for three acres, or 76 lbs. per acre ; and taking into consideration that there was still some unripe Cotton in the field, the produce may fairly be taken at 80 lbs. per acre.

From the one acre sown in September I have no return yet, as on 21st March the Cotton was only then beginning to get ripe.

THIRD EXPERIMENT AT BUNKAPOOR.

Three acres Cotton sown 21st July—Black soil.

The picking is not yet finished, but has produced thus far—

	Kupass.	Cotton.
1 acre sown Native way in drills....	158 lbs.	53 lbs.
1 „ „ 1 foot distance.....	244 „	81 „
1 „ „ 2 feet „	181 „	60 „
		194 lbs.
Or average....		65 lbs.

It is stated, however, that the Cotton is of inferior quality.

All these experiments appear to me to confirm my former view, that it is absolutely essential that the seed should be sown early, indeed as early as possible, and if so an advantageous return may be expected.

As regards the experiments now directed by the Government to be tried by Drs. Gibson and Forbes, and Mr. Daley, I would suggest that, if the experiments are sufficiently large to admit of it, it would be desirable to record the dates of sowing, the actual cost per 1,000 feet of each of the operations of digging, sowing, weeding, picking, pruning, and second picking; and to record likewise the state of the weather for each day from the commencement of digging the ground to the conclusion of the experiment, viz. whether slight rain, much rain, or heavy rain; whether cloudy or sunny, and the character of the weather generally; whether dry hot wind, cool mild weather, or hot damp weather; the attacks of insects might also be recorded, and specimens preserved in Gingelly Oil, so as to show the character of the insects at different seasons. The shedding of bolls at certain seasons is likewise of great interest.

If data of this description are fairly recorded, I cannot see any reason why we should not be able to discover the reason of any temporary or partial failure, and be able to devise a remedy.

As regards the forms embodying the data that I have indicated above, it will probably be more satisfactory to Drs. Gibson and Forbes that they should themselves prepare them, as their experience in such matters is so much superior to mine, and they will doubtless be able to improve on my suggestions.—I have the honour to be, &c.,

(Signed) H. BROOKE.

Bombay, 2nd April 1859.

No. 1897 OF 1859.

REVENUE DEPARTMENT.

To J. MAWSON, Esq.,
Secretary to the Chamber of Commerce.

SIR,—With reference to Mr. Chief Secretary Young's letter, No. 2362, dated the 17th July 1858, I am directed to forward the accompanying copy of a communication from the Revenue Commissioner Northern Division,* with the samples of Cotton received from Mr. Daley, and to request that you will move the Chamber of Commerce to favor Government with a reply to the question suggested by Mr. Fawcett, and to state whether their views regarding ginned Indian Cottons are confirmed, or otherwise, by the samples now sent.

A bale of the Sea Island Cotton referred to by Mr. Daley has been sent for, and will be forwarded to the Chamber if they desire it.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 19th May 1859.

No. 9 OF 1859.

To J. W. HADOW, Esq.,
Collector, Ahmedabad.

SIR,—With reference to your Memorandum No. 332, of the 4th instant, and the Revenue Commissioner's letter No. 2237, of the 18th November last, I have the honor to forward the report therein called for.

2. I have arranged, with the aid of a microscope, the samples of Cotton submitted for my inspection and guidance, which is considered in the English market to be good marketable cotton, according to the quality of their staples; but I do not know whether my classification will assimilate with that which obtains in the English market.

The samples are returned, as requested, in Packet No. 1, a portion of each having been retained by me.

* Memorandum No. 759, dated the 4th May 1858, with accompaniment.

Egyptian.....
Pernambuco .....
Bahia .....
Moranhum .....
} About the same value, but if there be any slight difference in price, it ought to be in the order arranged. Fibres long and silky.

New Orleans, less in value than the above.

Mobile, ditto ditto ditto.

Uplands, fibres short, strong, but rather woolly.

Surats, less in value than the above, an admixture. Fibres short, some silky and others woolly; very dirty, much more so than any I have seen shipped from the ports this side of the Gulf. Fair, clean, unmixed Surat Cotton ought to be of the same value as the best New Orleans.

No. 2 Packet herewith forwarded contains the undermentioned samples of Exotic and Indigenous Cotton grown in this Zilla:—

No. 1. Sea Island Cotton, unirrigated; the seed was received from General W. Cullen, of Travancore, it was sown under the disadvantage of a late monsoon in 1857 at Gogo, and most part of the plants destroyed by cattle after they had sprung up nicely, as already reported; but about four beegas which had been merely cropped by the cattle (which was equivalent to pruning) were allowed to take their chance through the hot season of 1858, gave a fair yield; the sample is a specimen of it; it is unmixed, was grown on black soil; fibres long and silky, and I consider it equal to the best of the English samples. A bale of it, if required for testing, can be forwarded to Bombay. This species of Cotton takes kindly to the soil. If I could have obtained the spot of Government waste land which I had selected outside the Goondie Gate, which becomes an islet during the spring tides, and the soil of which is a mixture of fine clay and sand, I am certain that the produce of it would have been equal in yield and quality to the best of its kind.

No. 2. New Orleans Cotton, unirrigated; fibres some long and others short; texture some silky and others woolly. This Cotton was cultivated by the ryots, in the Dhundooka Talooka; it is an admixture of New Orleans, Mastudon Orleans, Hybrids, &c., and is the last of the admixture which the ryots had in their possession, and which I have secured; it was sown in July in red, black, and white soils, and come to maturity early in November. In quality it is equal to the Mobile and Uplands. The unmixed New Orleans Cotton seed grows vigorously and well in the Dhundooka and Gogo Talookas.

No. 3. Indigenous Nurma Kuppas, unirrigated; fibres very

soft and silky, but rather short; pure. This description of Cotton is sown round gardens in this zilla; it rises to the height of five and nine feet, with fibres upwards of an inch in length when irrigated and manured, and has all the characteristics of the celebrated Dacca Cotton; it is used in making the Janeva or Brahminical thread. The sample was neither irrigated nor manured, the fibre is in consequence shorter than usual; it is, however, rather prolific, was sown in Government soil in July last, and commenced bearing in November, and has continued to bear ever since. I have only four plants, having sent last year all the seeds of this species that I could procure to Dr. Gibson; but I am collecting seeds for a further trial. The fibre of the Nurma is shorter than either the Sea Island or Egyptian, but in softness and silkiness of texture it is superior to either of them. The Dewkuppas of the Deccan and Concan or Pernambuco, or Kidney Cotton, is also cultivated here in the gardens by the Deccanie Brahmins for the purpose of making their sacerdotal threads. Both those descriptions of Cotton require irrigation and manure, otherwise they deteriorate.

No. 4. Indigenous Wagria Cotton, irrigated, pure; was sown in June 1858, and picked early in March 1859. The sample was sown in irrigated and manured first sort red garden soil; the staple is equal in length, strength, and texture to the best description of New Orleans.

No. 5. Indigenous Wuguria Cotton, partially irrigated, pure; was sown in June 1858, and picked early in March 1859. The sample was sown in thoroughly manured first sort red garden soil; the staple and texture are the same as No. 4; it received partial irrigation by percolation whenever No. 4 was flooded, near which it was sown.

No. 6. Indigenous Wuguria Cotton, unirrigated and unmanured, pure, middling. The sample was sown in Gorat soil by a ryot in June 1858, and picked early in March 1859; the staple is equal in length, strength, and texture to middling Mobile and Uplands.

No. 7. Indigenous Lallia Cotton, unirrigated and unmanured, pure, fair; it was sown in black soil in June 1858, and picked late in March 1859. The staple is equal in length, but not in strength, to the best New Orleans, but in softness and silkiness of texture it is far superior to it; it may be ranked with fair New Orleans, Mobile, and Uplands. It is of the same species as fair Surat and Broach Cotton, is principally cultivated on the borders of

the salt marsh in the Dhundooka Talooka, and stands any quantity of moisture. When the Null or salt lake, the Wudwan Limbree, and Dhundooka Rivers overflow their banks, the whole of the Lallia Cotton is occasionally immersed in water for days together, and the only effect that extreme moisture appears to have on it, is, the Cotton comes to maturity a fortnight later than the Wuguria.

3. All the samples were ginned.

4. When I cultivated Sea Island and New Orleans Cotton near Surat, I noticed that the leaves and bolls dropped off occasionally during the monsoon, when the rains held back, more particularly in the hot months of September and October when the dry north-easterly winds prevailed. The great drawback to the successful culture of the Exotic at Surat and Broach, is the want of moisture immediately after the monsoon. On this side the north-easterly wind blowing across the Gulf carries with it sufficient moisture to temper the land to the Exotic, and from what I have noticed of the temperature of this Zillah, I am inclined to believe that every variety of the valuable Exotics will thrive and yield any quantity, from the head of the Gulf as low down as Jafferabad to the south, on any description of soil. The Wuguria Cotton, which is indigenous in this Collectorate and in Kattiwar, and has every characteristic of the New Orleans, will not thrive in the Surat and Broach Zillahs, neither will the New Orleans.—I have, &c.,

(Signed) C. DALEY,
Supt. of Cotton Experiments.

Dhundooka, 31*st March* 1859.

No. 484 OF 1859.

Submitted to the Revenue Commissioner, N. D., with reference to his Endorsement No. 2546, of 13th November 1857, and subsequent correspondence ending with letter No. 2237, dated 18th November 1858.

The samples forwarded for Mr. Daley's inspection are herewith returned, by bhangy, and samples of Exotic and Indigenous Cotton are also submitted.

(Signed) J. W. HADOW,
Collector.

Ahmedabad, Collector's Camp, Moorassa, 15*th April* 1859.

No. 759 OF 1859.

TERRITORIAL DEPARTMENT, REVENUE.

Submitted with reference to the Government Letter No. 5046, dated 24th November 1857.

2. The samples of Cotton alluded to will be handed on as soon as received.

3. In referring to the Chamber of Commerce for opinion, it will be as well to request them to state whether the staple has been injured by the process of ginning the samples, with reference to the proceedings connected with the report received from Dharwar.

Vide particularly the Chamber's Letter No. 78, dated 27th July 1858, to Government.

4. The Revenue Commissioner will be obliged by instructions, whether Government require a bale of the Sea Island Cotton adverted to in Clause IV. of Mr. Daley's para. 2.

(Signed) E. G. FAWCETT,
Revenue Commissioner, N. D.

Revenue Commissioner's Office, Camp Matheran, 4th May 1859.

No. 77 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—By direction of the Committee of the Chamber I have the honor to acknowledge receipt of your letter No. 1897 of 1859, dated 19th May, enclosing copy of letter from Mr. Daley to the Collector of Ahmedabad, with sundry samples of Cotton for report and valuation.

The samples sent are quite clean, and apparently picked from the plant without exposure to the sun and dews, as usual with native Cotton, and they therefore appear of a much superior quality to ordinary native Cottons, which are generally left on the field for a fortnight or three weeks before being gathered. The bad practice last mentioned is the main cause of the low quality of Indian Cotton, as exemplified by the sample of fair Surat, at which Mr. Daley is naturally somewhat surprised, as the pressure to which the Cotton is subjected in Bombay renders more

prominent the dirt and leaf, and the latter (naturally light brown) becoming blackened by moisture and age, adds to the inferiority of the native sample in question.

It is difficult to say what might be the value of pure Broach Cotton if picked daily from the plants, as the pods open, but the Chamber would suggest that if practicable the experiment might be tried with three or four acres next season. The pickings of each fourteen days should be kept separate, as they would probably last six weeks in all, and the first and last fourteen days' picking would be found inferior to that of the fourteen days in the height of the crop. Although indigenous Indian Cotton has never yet been supposed equal to middling Orleans, it is not impossible that the second fourteen days' picking would be found to come very close to the value of American. The Cotton should be churkaed rather than sawginned.

With reference to the samples sent for valuation, the Chamber would observe that they are quite free from leaf and other impurities—a condition hardly obtainable in practice—but if the Cotton could be delivered in quantity equal to the small samples sent, the Chamber believes that the following would be the valuation and description attachable to the different varieties :—

No. 1, Sea Island,—This Cotton is evidently not Sea Island, as it wants both length and the peculiar fineness of staple which characterises that description. A sample of Sea Island grown at Hooblee, and valued at 1s. 2d. to 1s. 6d. per lb., is herewith forwarded for the inspection of Mr. Daley, who will observe that the staple is nearly two inches long and of a peculiarly fine texture.

No. 1 would probably be described and valued as follows :—Good strong stout staple, quite clean, bright color, a little injured by the Sawgin, value about 6½d. to 6¾d.

No. 2, New Orleans and mixed Hybrids,—short weak staple which appears perished ; quite clean, bad color, value 4¾d. to 5d.

No. 3, Nurma,—good strong rather short staple, quite clean, rather yellowish color, value 6¼d. to 6½d.

No. 4, Wagria,—very strong staple, quite clean, very good color, value 6½d. to 6¾d.

No. 5, Ditto ditto } No appreciable difference.
No. 6, Ditto ditto }

No. 7, Lallia,—short but fine staple, quite clean, bright color, value 6d. to 6¼d.

The above valuations are based upon the supposition that

"middling Orleans" would be worth 7d. per lb., but it must be remarked that as a mercantile article containing a little leaf and dirt, the valuation would suffer ¼d. to ½d. per lb.

Nos. 2 to 6 do not appear at all injured by the Sawgin, but Nos. 1 and 7 are somewhat injured, the former on account of the length, and the latter on account of the fineness of the staple.

The high relative value of American Cotton is due to the great *evenness* of the staple, and to the fact of its being very strong and unmixed with short downy fibres; these latter are the cause of the great loss in spinning East India Cotton, as they pass off as absolute *waste*. The actual length of the American variety is not greater than that of the best descriptions of Dhollera, Broach, and Comptah, although it is much more even, and if the latter were picked *daily*, and as carefully got up as American Cotton generally, they would probably fetch a much enhanced price; but it would take a considerable period before the spinners would have the same confidence in them, as the pernicious custom of the natives of mixing inferior with their best Cotton will not be readily abandoned, and thus the whole produce of the country becomes suspected.

It is highly desirable that, upon all suitable occasions, it should be represented to the head men, through the Government officials of the districts, how much the growers suffer for the dishonesty of a few, and how much it would be to their interest to be scrupulously careful in all their dealings.

The greatly improved quality of East India Cotton of late years leads the Chamber to hope that the cultivators and dealers will gradually see it to be their own interest to sacrifice their temporary gains from fraudulent admixtures and adulterations, and rather to rely upon the improvement of the quality for an increase to their profits.

The Chamber begs to tender its best thanks to the Right Hon'ble the Governor in Council for the interest taken in the desirable object of improving the value of this important staple, and begs to assure him that they will do all in their power to assist in promoting its extended culture.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 6th July 1859.

No. 1601 OF 1859.

REVENUE DEPARTMENT.

To J. MAWSON, Esq.,
Secretary to the Chamber of Commerce, Bombay.

SIR,—I am directed by the Right Honorable the Governor in Council to forward herewith, for submission to the Chamber of Commerce, copies of the papers marginally quoted, having reference to the report of the Superintendent of the Cotton Gin Factory at Dharwar, for the half year ending 30th November 1858.

Letter from the Revenue Commissioner Southern Division, No. 608, dated 21st March 1859, with accompaniments.
Government Resolution of this date, No. 1600.

2. I am desired to request that you will have the goodness to draw the attention of the Chamber to paragraph 9 of the letter from the Collector of Dharwar, No. 273, dated 7th March 1859.
—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 26th April 1859.

No. 608 OF 1859.

TERRITORIAL DEPARTMENT, REVENUE.

From J. D. INVERARITY, Esq.,
Revenue Commissioner, S. D.,

To B. H. ELLIS, Esq.,
Acting Secretary to Government.

SIR,—I have the honor to submit, for the information of the Right Honorable the Governor in Council, a letter from the Collector of Dharwar, No. 273, dated 7th instant, with accompaniments, being the Report of the Superintendent Gin Factory, Dharwar, detailing the operations of his establishment for the half year ending 30th November 1858.

2. The following table contrasts the work of this establishment during the periods ending 30th November 1857 and 31st May 1858, with that for the period now reported on. The results are, on the whole, satisfactory :—

Items.	Half-year ending 30th November 1857.		Half-year ending 31st May 1858.		Half-year ending 30th November 1858.		Half-year ending 30th November 1858 compared with							
							Half-year ending 30th November 1857.				Half-year ending 31st May 1858.			
							Increase.		Decrease.		Increase.		Decrease.	
1	2		3		4		5		6		7		8	
	No.	Amount. Rs. a. p.	No.	Amount. Rs. a. p.	No.	Amount. Rs. a. p.	No.	Amount. Rs. a. p.	No.	Amount. Rs. a. p.	No.	Amount. Rs. a. p.	No.	Amount. Rs. a. p.
No. of Gins completed ...	63	9,215 0 0	90	13,200 0 0	55	7,670 0 0	...	.....	8	1,545 0 0	...	.....	35	5,530 0 0
No. of Gins repaired	114	889 14 9	142	1,142 3 5	134	1,058 4 5	20	168 5 8	...	.....	...	.....	8	83 15 0
No. of Gins sold	35	4,870 0 0	88	13,220 0 0	50	6,940 0 0	15	2,070 0 0	...	.....	...	.....	38	6,280 0 0
Value of work done.....	...	10,294 14 9	...	14,289 3 5	...	9,736 5 3	...	.....	...	558 9 6	...	.....	...	4,552 14 2
Cost of materials, labor, &c.	...	7,861 8 1	...	11,321 13 4	...	7,562 2 4	...	.....	...	299 5 9	...	.....	...	3,759 11 0
Proceeds from sale and repair of Gins	...	8,922 6 9	...	12,107 11 9	...	8,211 3 4	...	.....	...	711 3 5	...	.....	...	3,896 8 5
Ditto from other sources.	...	126 0 6	...	178 14 7	...	2 0 0	...	.....	...	124 0 6	...	.....	...	76 14 7
Profit	...	2,433 6 8	...	2,967 6 1	...	2,174 2 11	...	.....	...	259 3 9	...	.....	...	795 3 2

3. Dr. Forbes's report shows that that officer's best energies are devoted to the performance of his duties ; and that no opportunity of designing and effecting improvements for the general benefit is allowed to pass unheeded.

4. In his 4th paragraph, Dr. Forbes alludes to a pile-driving machine designed and constructed by himself. Its usefulness, in the rapid construction of bridges over loose soil, is testified to by the Collector, who recommends that Dr. Forbes be authorised to submit a working model of the same to Government. I beg instructions on this point.

5. It is further recommended by the Collector, for the reasons stated by Dr. Forbes, that this officer should be allowed to increase the number of his indentured apprentices to be trained as mechanics. In para. 3 of their Resolution No. 4219, of 15th September 1857, Government observed that "it is no doubt desirable that the fullest possible advantage be taken of the Dharwar Factory, and that as many persons should be instructed in the construction of the Saw Gins, &c., as possible. If, therefore, other workmen are not to be had, it may be necessary to have recourse to apprentices, indentured for short periods (3 or 4 years), but if journeymen can be procured, it is better to employ them, for already knowing, as they must do, something of their work, and improving, as they would, in the Factory, they are evidently of more use and value than boy apprentices who must begin with the rudiments of their profession, and are considered perfect only at the close of their apprenticeship." This view was concurred in by the Hon'ble Court in para. 27 of their Despatch No. 7, dated 28th July 1858, and Dr. Forbes now reports that 13 lads have already been indentured for a term of 3 years. It rests with His Lordship in Council to determine whether, for the reason given by Dr. Forbes, this number should be increased. Labor of all descriptions is doubtless scarce, and there is every probability of its becoming more so, on the extension of railway operations across the Peninsula.

6. There can be no objection to the mechanical Superintendent, Mr. Courpalais, continuing in his appointment. The acceptance of his resignation was permitted in the Government Resolution No. 3879, of 25th November last.

7. The testimony borne to the quality of the Gins at present in use, in para. 8 of Dr. Forbes's report, will no doubt be viewed as satisfactory.

8. The exhaustion of the Canara timber forests, and the prospective scarcity of timber, appear to render advisable the early consideration of the projected cast-iron Gin, a model of which Dr. Forbes states he has submitted to the Manchester Association.

9. Under the circumstances represented in Dr. Forbes's 12th para., the despatch of a trustworthy person from the Gin Factory for the purpose of preserving the seed from the newly planted American Cotton may be approved. The securing of the Cotton of this growth for the Chamber of Commerce will, it is stated, afford a favorable opportunity for ascertaining the value of pure Indian-grown American Cotton.

10. The inapplicability of the present Saw Gin to the cleaning of indigenous Cotton is matter for regret. Cotton of this description is stated not to have been cleaned by the Saw since the year 1855. Dr. Forbes believes (para. 14) that a different description of Gin, varying in many material points, may be made for cleaning this variety of Cotton, and he adds, (para. 17) owing to the small size of the seed (which does not exceed one-third of that of the New Orleans), and also from the shortness and tenderness of its fibre, there can be no doubt that for the cleaning of it the roller is the best and safest appliance, if its performance could only be expedited by the application of mechanical power to the Churka. He has, he states, been for some time engaged in endeavouring to effect this, and he hopes, now, with some prospect of success. This being a point of interest, Dr. Forbes might be requested to report further on it, after maturing his experiments; meanwhile, the arrival of the Macarthy Gin announced in the Government Resolution No. 981, of 16th instant, will afford that officer the desired opportunity of testing its suitableness or otherwise to the cleaning of indigenous Cotton. —I have the honor to be, &c.,

(Signed) J. D. INVERARITY,
Revenue Commissioner, Southern Division.

Revenue Commissioner's Camp, Rutnagherry, 21st March 1859.

No. 273 OF 1859.

From T. OGILVY, Esq.,
Collector of Dharwar,

To J. D. INVERARITY, Esq.,
Revenue Commissioner, S. D.

SIR,—I have the honor to transmit for the information of Government, an original report from the Superintendent of the Dharwar Cotton Gin Factory, detailing the operations of the establishment during the half year ending the 30th Nov. last.

2. The subjoined abstract shows that they continue to be satisfactory:—

	Half-year ending 31st May 1858.				Half-year ending 30th November 1858.				Increase.		Decrease.			
		Rs.	a.	p.		Rs.	a.	p.				Rs.	a.	p.
1. Number of Gins completed	90	13,200	0	0	55	7,670	0	0	...	...	35	5,530	0	0
2. Number of Gins repaired...	142	1,142	3	5	134	1,058	4	5	...	...	8	83	15	0
3. Number sold	88	13,220	0	0	50	6,940	0	0	...	...	38	6,280	0	0
4. Value of work done	...	14,289	3	5	...	9,736	5	3	...	...	...	4,552	14	2
5. Cost of materials, labour, &c.....	...	11,321	13	4	...	7,562	2	4	...	...	...	3,759	11	0
6. Proceeds from sale and repair of Gins.....	...	12,107	11	9	...	8,211	3	4	...	...	...	3,896	8	5
7. Proceeds from other sources.....	..	178	14	7	...	2	0	0	...	...	...	176	14	7
8. Profit	...	2,067	6	1	...	2,174	2	11	...	...	...	793	3	2

3. As the profits of the Factory are now sufficient to cover the cost of European superintendence, the advantages of the establishment are secured to the country without expense to Government.

4. I would beg strongly to recommend that Dr. Forbes should be authorised to submit to Government a model of his Pile Engine. From having seen it working I can testify to its great success, and that it promises to be exceedingly useful. Bridges can, in a very short time, and at comparatively trifling cost, be strongly built of wood by means of this engine, over most streams whose beds are not excessively deep.

5. I hope that, for the reason given, Dr. Forbes will be allowed to increase the number of his apprentices. Every skilled artisan added to the labour market is a gain to the country, and as the Cotton Gin Factory is an excellent school for training them, it would be a matter for regret were the advantages it offers not to be fully turned to account.

6. Dr. Forbes is desirous that Iron Gins should be provided by an early date, according to the model sent by him to the Manchester Association. Should they be found to answer, they will meet, at a lower price probably than wooden ones, the increasing demand for Gins, and obviate the evil arising from the increasing scarcity of timber.

7. In my letter to your address dated the 17th March last, No. 340, I recommended that a ton of fresh New Orleans Cotton Seed should be procured, with a view to ascertain whether the acclimated American Seed had deteriorated or not, and it would appear that a supply of fresh seed was sent last year to Dr. Forbes. It arrived too late in the season to admit of its being tried to the best advantage. Some of the plants raised from it that I have seen growing within sight of those grown from the old New Orleans Seed were poor in comparison, but I understand that in other places the experiment has succeeded better.

8. Dr. Forbes will, I hope, send to the Bombay Chamber of Commerce a sample of Sawginned Cotton grown from the acclimated American Seed, in order that that body may be able to compare it with the Sawginned Cotton produced from the fresh seed.

9. The crop of old New Orleans Cotton now on the ground is finer and less mixed with the indigenous kind than I have ever seen it, so that I trust the agriculturists will obtain a good return from it, and that the character of the Dharwar Cotton in the market will be raised.

10. I hope that Dr. Forbes's expectation of being able to apply mechanical power to the Churka may be realised, for such a result would be of the greatest advantage to the cotton trade of the country.—I have the honor to be, &c.,

(Signed) T. OGILVY,
Collector.

Dharwar, Collector's Office, Camp Adoor, 7th March 1859.

STATEMENT No. 8.

Cotton Planter's Report from 1st June to 30th November 1858 in the Dharwar Collectorate.

Talooks.	Remarks on the past Season as to how far anticipations regarding the crop and its disposal were realised.	Supposed proportion of the last year's crop which has been cleaned in the Saw Gins, or will be so cleaned.				Gins.										Profit or loss to Government, deducting the cost of European Superintendence.	Total net expenses on account of Experiment from the commencement to the close of the half-year preceding that under Report.	Total Expenses for the half-year under Report.	Prospects of the coming Season.	Remarks.
		New Gineas.	Broach.	Total Foreign.	Country Cotton.	For Sale.	In use.		Out of use.	Completed in the present half-year.		Being made.			Sold for Government during the half-year under Report.					
						Belonging to Government in the Factory.	Belonging to private Individuals.		Belonging to private Individuals.	Belonging to Government.		For Government.	For private Individuals.		Number and size of Gins.	At what cost.				
		Candies of 784 lbs. each.	Candies of 784 lbs. each.	Candies of 784 lbs. each.	Candies of 784 lbs. each.	Number and size of Gins.	Number and size of Gins.	Talooks.	Number and size of Gins.	Talooks.	Number and size of Gins.	Value.	Number and size of Gins.	Number sold.	Size of Gins.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Season was favorable, and anticipations about the yield of the crop were nearly realised.	26,900 candies and 299 lbs.		26,900 candies and 299 lbs.	65,814 candies and 324 lbs.	3 Gins of 20 Saws. 19 Gins of 18 Saws. 16 Gins of 10 Saws. 2 Gins of 4 Saws. 2 Roller Gins. 1 Egyptain Churka. 1 Cotton Thrasher 44	6 Gins of 40 Saws. 1 Gin of 25 Saws 1 Gin of 24 Saws. 13 Gins of 20 Saws. 21½ Gins of 18 Saws. 9 Gins of 14 Saws. 3 Gins of 13 Saws. 169 Gins of 10 Saws. 60 Gins of 8 Saws. 143 Gins of 7 Saws. 619	Unable to state, as the Gins are constantly removed about from one Talooka to another, and often into the adjacent Madras Districts and Enam Villages, according to the requirements of the owners.	None I am aware of.	None I am aware of.	27 Gins of 18 Saws 28 Gins of 10 Saws. 55	Rs. 4,590 3,080 7,670	3 Gins of 18 Saws 2 Gins of 10 Saws. 23 Gins of 8 Saws. 1 Cotton-cleaning Machine. 26 Roller Churkas. 55	None.	None.	24 Gins of 18 Saws. 26 Gins of 10 Saws. 50 *Add*— Value of Repairs to Saw Gins.	Rs. 4,080 0 0 2,860 0 0 6,940 0 0 1,058 4 5 7,998 4 5	Net profit during the six months under Report is Rs. 2,174-2-11, as shown in the accompanying Abstract Statement of Cost and Returns.	Total Expenses ..... Rs. 6,16,515 7 0 „ Receipts ..... „ 1,94,738 14 11 Balance... Rs. 4,21,786 8 1	Total Expenses ..... Rs. 8,955 5 5 „ Receipts ..... „ 8,213 3 4 Balance... Rs. 742 2 1		

Dharwar, Cotton Gin Factory, 1st December 1858.

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

STATEMENT No. 9.

Account of Receipts and Expenditure of the Cotton Experiments, Dharwar Collectorate, from the commencement up to 30th November 1858.

Amount of Receipts from the commencement up to the Half-year preceding that under Report									Rs.	194,728	14	11
For the Half-year under Report, from 1st June to 30th November 1858 :—												
By Proceeds of the sale of Saw Gins, viz :—												
June	1858		Rs.	991	0	0						
July	,,		,,	2,320	0	0						
August	,,		,,	850	0	0						
September	,,		,,	1,049	0	0						
October	,,		,,	1,696	0	0						
November	,,		,,	470	0	0						
							7,376	0	0			
By Proceeds of the Repair of Saw Gins, viz. :—												
June	1858		Rs.	189	11	4						
July	,,		,,	93	5	6						
August	,,		,,	87	14	6						
September	,,		,,	101	2	6						
October	,,		,,	325	9	6						
November	,,		,,	7	8	0						
							805	3	4			
By Deposits for Gins to be disposed of :—												
June	1858		Rs.	10	0	0						
November	,,		,,	20	0	0						
							30	0	0			
By Amount recovered for advances made for carriage of Saw Gins							Rs.	2	0	0		
										8,213	3	4
										202,942	2	3
Balance against the Experiment										422,528	10	2
									Rupees	625,470	12	5

Amount of Expenses from the commencement up to the Half-year preceding that under Report									Rs.	616,515	7	0
For the Half-year under Report, from 1st June to 30th November 1858 :—												
Allowance to Dr. G. F. Forbes, Superintendent Cotton Gin Factory, from 1st May to 31st October 1858, at Rs. 200 per month							Rs.	1,200	0	0		
Salary of the Establishment of the Cotton Gin Factory, from 1st May to 31st October 1858							Rs.	1,749	12	2		
										2,949	12	2
Batta to the Establishment passed for the months from April to September 1858							Rs.			34	0	6
Sundry expenses for constructing Saw Gins, as per Bills audited for the following months, viz. :—												
April	1858		Rs.	1,058	2	4						
May	,,		,,	906	15	11						
June	,,		,,	1,041	6	7						
July	,,		,,	685	15	5						
August	,,		,,	1,617	8	1						
September	,,		,,	423	2	6						
										5,733	2	10
Value of Tools purchased for the use of the Factory							Rs.	225	0	7		
Charges for carriage of Tools from Belgaum and Bombay							Rs.	13	5	4		
										238	5	11
										8,955	5	5
									Rupees	625,470	12	5

(Signed) G. F. Forbes,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 1st December 1858.

STATEMENT No. 10.

Detailed Memorandum of Sums collected, during each of the six months embraced in the Cotton Planter's Report for the half year commencing 1st June and ending 30th November 1858, for Gins sold, and value of Repairs to Gins during that period, also for Repairs to Gins and Gins sold during the previous half year.

Months.	Sums collected during the present half year for Gins sold prior to 1st June 1858.	Sums collected for Gins sold during the half year under report.	Sums collected during the present half year for Repairs made prior to 1st June 1858.	Sums collected for Gins repaired during the half year under report.	Total.	Remarks.	
	Rs. a. p.	*Rs. a. p.*	*Rs. a. p.*	*Rs. a. p.*	*Rs. a. p.*		*Rs. a. p.*
June 1858 ...	551 0 0	440 0 0	174 11 4	15 0 0	1,180 11 4	Amount collected for sale and repair of Saw Gins in the six months under report.....	8,181 3 4
July ,, ...	500 0 0	1,820 0 0	58 13 6	34 8 0	2,413 5 6		
August ,, ...	150 0 0	700 0 0	.....	87 14 6	937 14 6	Advances deposited for Gins to be disposed of	30 0 0
September ,, ...	.....	1,049 0 0	.....	101 2 6	1,150 2 6	Amount recovered for advances made for carriage of Saw Gins.....	2 0 0
October ,, ...	825 0 0	871 0 0	267 3 0	58 6 6	2,021 9 6		
November ,, ...	.....	470 0 0	.....	7 8 0	477 8 0		
Total...Rupees	2,026 0 0	55,30 0 0	500 11 10	304 7 6	8,181 3 4	Rupees	8,213 3 4

Dharwar, Cotton Gin Factory, 1st December 1858.

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

STATEMENT

Cr. Abstract Statement showing the Cost and Return of the Cotton Gin

	Rs.	*a.*	*p.*	*Rs.*	*a.*	*p.*
By difference of the value of 2 Gins of 18 Saws, in which work for Rupees 51 was done to the close of last half year, and which are since completed...	289	0	0			
„ Value of 25 Gins of 18 Saws each, completed in the present half year, Rupees 170 per each	4,250	0	0			
„ Do. of work on 2 Gins of 18 Saws, being made	2	0	0			
„ Difference of the value of 1 Gin of 10 Saws, in which work for Rupees 1 was done to the close of last half year, and which is since completed	109	0	0			
„ Value of 27 Gins of 10 Saws, completed in the present half year at Rupees 110 per each	2,970	0	0			
„ Do. of work on 2 Gins of 10 Saws, being made	4	0	0			
„ Do. of do. towards completing 23 Gins of 8 Saws, being altered...	714	0	0			
				8,338	0	0
„ Value of Repairs to old Gins	...		...	1,038	4	5
„ Cost of constructing a Pile Engine for the Public Works Department...			...	259	5	10
„ Do. of altering a do. do. for do. do.	...		...	74	11	0
„ Value of sundry Tools and Implements made for the use of the Factory, viz :—						
5 Carpenters' Chisels	2	0	0			
4 Drills	1	8	0			
11 Cold Chisels and Punches	2	0	0			
1 Wrench	0	8	0			
				6	0	0
Rupees				9,726	5	3

Dharwar, Cotton Gin Factory, 1st December 1858.

No. 11.

Factory, Dharwar Collectorate, from 1st June to 30th November 1858. *Dr.*

	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
To Cost of Establishment :—									
Salary of the Fixed Establishment, exclusive of that of the European Superintendent and an Apprentice	1,494	15	3						
Batta to the Fixed Establishment, exclusive of do. do. and do.	25	14	0						
Wages to the Contingent Establishment	2,897	5	1						
Nominal Cost of Convict Labour	.....								
				4,418	2	4			
„ Cost of Materials :—									
133 Maunds 17 lbs. 4 oz. of Square Iron of sizes at different rates...	246	7	10						
66 Maunds 6 lbs. 3 oz. of Round Iron of sizes at different rates...	122	13	7						
32 Maunds 7 lbs. 7 oz. of Sheet Iron of sizes at different rates	101	9	11						
71 Maunds 7 lbs. 2 oz. of Flat Iron of sizes at different rates	141	7	10						
4 Maunds 11 lbs. 4 oz. of Steel from unserviceable files at different rates	15	7	11						
350 Koolas of Country Iron weighing 759 lbs. 2 oz. at 12 lbs. per Rupee...	63	4	2						
49 Maunds 24 lbs. 3 oz. of Zinc at Rs. 5-12-0 and upwards per maund of 28 lbs.	293	3	6						
8 Maunds 2 lbs. 12 oz. of old Brass at annas 8 per lb...	113	6	0						
120 Gross 9 dozens and 9 Screws of sizes at different rates	93	14	1						
Wear and tear of Files, 207, weighing 160 lbs. 6 oz.	98	12	0						
1 Circular Saw of 12 inches in diameter	1	8	0						
795 Circular Saws of 10 inches in diameter, at Rs. 1-2-4 per each	910	5	0						
Steel from 1 Circular Saw of 8 inches, unserviceable	0	4	0						
24 Buffaloe Hides weighing 13 maunds 19 lbs. 11 oz. at Rs. 4-4 and upwards per maund ...	58	2	8						
6 Bullock Hides weighing 2 maunds 27 lbs. 12 oz. at Rs. 4-6 and upwards per maund	13	1	4						
1036 Puras of Charcoal at 12 Puras per Rupee and upwards	86	5	11						
86 Logs of Honny wood measuring 1,647 cubic feet, at 4 annas and upwards per cubic foot ...	411	11	10						
10 Logs of Teak wood measuring 253¼ cubic feet, at 8 annas and upwards per cubic foot	126	13	5						
13 Baubool Blocks	0	12	0						
20 lbs. 6 oz. of Horse Hair	7	9	8						
2 lbs. 7 oz. of Brass Wire	2	12	1						
				2,918	12	9			
„ Cost of Sundry Expenses :—									
June 1858...	61	15	5						
July „	57	1	10						
August „	17	8	6						
September „	21	7	6						
October „	45	5	10						
November „	21	12	2						
				225	3	3			
							7,562	2	4
„ Profit to Government for the half year							2,174	2	11
							Rupees 9,736	5	3

(Signed) G. F. FORBES,

Superintendent Cotton Gin Factory.

STATEMENT No. 12.

Detailed Memo. of the Number, Size, and Value of Gins made and sold during the half year ending 30th November 1858, and the balance of Cotton Machines in Store.

	Machines.																	
	Gins of 20 Saws.		Gins of 18 Saws.			Gins of 10 Saws.			Gins of 8 Saws.		Gins of 4 Saws.		Cotton Thrasher.		Egyptian Churka.		Roller Gins.	
	Number.	Value.	Number.	Value.	Value Recovered.	Number.	Value.	Value Recovered.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
		Rs.		Rs.	Rs.		Rs.	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Number which were on hand at the close of the last half year.....	3	...	16	...	...	14	...	...	...	...	2	...	1	...	1	...	2	...
Ditto completed during the present half year...	...	...	27	...	...	28	...	...	...	...	...	...	...	...	...	...	...	...
Total...	3	...	43	...	...	42	...	...	...	...	2	...	1	...	1	...	2	...
Deduct— Number sold in the present half year	...	...	24	4,080	3,050	26	2,860	2,300	...	...	...	...	...	...	...	...	...	...
Balance of Cotton Machines on hand, except those being made	3	...	19	...	...	16	...	...	...	...	2	...	1	...	1	...	2	...

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 1st December 1858.

STATEMENT No. 13.

Statement of Gins sold during the half year ending 30th November 1858.

	Description of Gins.						Total.			Remarks.
	Of Saws 18 each.			Of Saws 10 each.						
	No.	Amount.		No.	Amount.		No.	Amount.		
		Rs.	*a. p.*		*Rs.*	*a. p.*		*Rs.*	*a. p.*	
June 1858	4	680	0 0	11	1,210	0 0	15	1,890	0 0	
July „	3	510	0 0	4	440	0 0	7	950	0 0	
August „	4	680	0 0	5	550	0 0	9	1,230	0 0	
September „	8	1,360	0 0	2	220	0 0	10	1,580	0 0	
October „	1	170	0 0	1	110	0 0	2	280	0 0	
November „	4	680	0 0	3	330	0 0	7	1,010	0 0	
Total...Rupees	24	4,080	0 0	26	2,860	0 0	50	6,940	0 0	

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 1st December 1858.

No. 1600 OF 1859.

REVENUE DEPARTMENT.

TO THE REVENUE COMMISSIONER, SOUTHERN DIVISION.

Copy of the Resolution passed by Government on the foregoing Documents.

Government have frequently recorded their sense of Dr. Forbes's services. His present report is interesting, and will be printed for general circulation.

2. Dr. Forbes to be requested to submit a working model of his Pile-driving Machine.

3. The increase to the number of apprentices to be trained as mechanics is sanctioned. The price of labor is likely to rise rather than fall, and the entertainment of a number of apprentices is the only way of securing the services of mechanics.

4. There is no objection to Mr. Courpalais being allowed to withdraw his resignation.

5. Copies of these papers to be forwarded to the Chamber of Commerce, and also to the Manchester Cotton Supply Association. The latter body to be requested to favor this Government with an opinion on the cast iron Gin referred to in Dr. Forbes's 10th paragraph, and to state at what cost such Gins could be delivered in this country.

6. The attention of the Chamber of Commerce to be drawn to the Collector's 9th paragraph.

7. Government will await with interest the result of Dr. Forbes's experiments for the adaptation of mechanical power to the ordinary Churka.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 26th April 1859.

No. 75 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—By direction of the Committee of the Chamber of Commerce, I have the honor to acknowledge receipt of your letter

No. 1601 of 1859, dated 26th April, referring to the very interesting papers of Dr. Forbes upon the working of the Saw Gin Factory, as well as upon other matters.

It is matter of gratification to the Chamber to observe that the Sawginned Cotton of this season is greatly superior to that of late years, and they think it due to Dr. Forbes to state their opinion that it has probably been the result in a great measure of his exertions in endeavouring to induce the growers to weed out the native plants from the fields of American Cotton. If the cultivators will persevere in their good resolution, it is not unreasonable to expect that the American Cotton will regain the relative value it had reached before the system of adulteration began. The Chamber believes the difference in value between pure American Seed Cotton and the adulterated article to be at least ½*d.* per lb.

With reference to the samples sent, the Chamber has not been able to detect any difference in quality between that from the newly imported seed and that from the pure acclimated variety. They would, however, refrain from expressing too confident an opinion on the subject, as the value can doubtless be best ascertained in Manchester.

The Chamber has reason to believe that the action of the Sawgin is only detrimental to such Cotton as may have been mixed with native, or have become hybridised by growing in its vicinity; they therefore regard with great interest the persevering endeavour of Government to bring the Gin Factory into a full state of efficiency.

Several of the Macarthy Gins having now arrived, the Chamber will have the pleasure of placing two at the disposal of the Government, with the view of their applicability to the cleaning of native Cotton being decided.

The Chamber has received from Messrs. Brice and Co. a sample of the Sea Island Cotton sown at Hooblee in June, and picked in December and January; the Cotton itself is now in Bombay, having arrived before the monsoon. A sample has been sent home, and was valued in Liverpool by several brokers at 1s. 2d. to 1s. 3d., and by those who deal chiefly in Sea Island at 1s. 4d. to 1s. 6d. A sample is herewith forwarded. The produce per acre was 60 lbs. of perfectly sound, and about 16 lbs. of defective Cotton. It may therefore be deemed desirable to try further experiments in sowing next season, in May and June, to

a sufficient extent (say 50 to 100 acres) to test the relative cost against the native system.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay Chamber of Commerce, Bombay, 4th July 1859.

No. 52 OF 1859.

To H. B. E. FRERE, Esq.,
Commissioner in Sind.

SIR,—Referring to a conversation we had when I last had the pleasure of seeing you, I beg now to inform you that on the 28th ultimo five bags of American Cotton Seed were shipped by the Chamber on the steamer *Sindian* to the address of the Deputy Collector of Kurrachee, who was requested to forward the same to Lieutenant Tyrwhitt at Hyderabad, for trial in that neighbourhood. This seed is a portion of a quantity sent out by the Cotton Supply Association at Manchester, with a view to having the adaptability of the American seed to the soil and climate of our Cotton-growing districts fully and fairly tested. To secure this object, the Chamber desires to have the seed cultivated under the supervision of officers or others competent to see that it has a fair trial. The disposal of the seed the Chamber would leave entirely to the discretion of those to whose charge it is entrusted, with the remark that if its gratuitous distribution to neighbouring cultivators should appear the most likely mode of attaining the object in view, they are quite at liberty to adopt that course. The grand end is to ascertain the quantity, quality, and market value of the out-turn, and to attain this the Chamber is willing to purchase the produce, which, when picked and cleaned, should be despatched to its address at Bombay, accompanied by reports of the results of the different sowings.

The Chamber also desires to state that as the very important question of the relative merits of early and late sowing of American seed in this country is one upon which there is much difference of opinion, it would be esteemed a favour if those entrusted with the charge of the seed were requested to devote a portion of it specially to experiments in early and late sowing, as well as to

trial of the usual seed time of the district, favouring the Chamber with reports from time to time of the progress of the crop.

The officers should also be cautioned to avoid *garden experiments* with the seed, as the results of those afford little or no criterion as to the success or otherwise of the cultivation.

If you can issue such instructions as may secure the attainment of the objects here stated, the Chamber will regard it as a great obligation.—I have, &c.,

(Signed) ROBERT RYRIE,
Chairman.

Bombay Chamber of Commere, 10*th May* 1859.

No. 48 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—Referring to Mr. Ryrie's conversation with you this morning, I have been directed to send to you eight bags of fresh New Orleans Cotton Seed, with the request that you will have the goodness to forward the same in equal parts to Khandeish and Guzerat, to be entrusted to the care of any parties there whom the Government may deem most likely to take an interest in the growth of the plant.

The object of the Chamber in asking the Government to take charge of and cultivate the seed, is that they may get at the result of a fair trial of it in the soil and climate of the provinces of Guzerat and Khandeish, as a basis for more extended experiments. The Chamber also desires to state that, as the very important question of the relative merits of early and late sowing of American Seed in this country is one upon which there is much difference of opinion, they would esteem it as a farther favor if you would have the goodness to direct the officers who are to be entrusted with the care of this seed to devote a portion of it specially to experiments in early and late sowing, as well as to trial of the usual seed time of the country.

The officers should also be directed to avoid garden experiments with the seed, as the results of such afford little or no criterion as to the success or otherwise of an extended cultivation of the plant; and the Chamber would also like to have reports as to the results

of the different sowings, and to have the produce of the seed carefully picked, cleaned, and sent down to Bombay to the address of the Chamber.—I have the honor to be, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 5th May 1859.

No. 1742 OF 1859.

REVENUE DEPARTMENT.

To J. MAWSON, Esq.,
Secretary to the Chamber of Commerce.

SIR,—I am directed to acknowledge the receipt of your letter, No. 48, dated the 5th instant, and the eight bags of New Orleans Cotton Seed therewith forwarded, and to state that Government will have much pleasure in complying with the request made by the Chamber of Commerce, and will inform them of the result.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 9th May 1859.

No. 50 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—In continuation of my letter of the 5th instant, and with reference to the American Cotton Seed therewith forwarded to you for distribution and cultivation in Guzerat and Khandeish, I am directed by the Committee of the Chamber to add that if it shall appear to the Officers entrusted with the management of the Seed that the object of the Chamber, as previously stated, will be best attained by the gratuitous disposal of the Seed to one cultivator, or more than one, the arrangement is left entirely to the discretion of each officer. It is an essential point, how-

ever, that the produce should be forwarded to the Chamber, and to secure this the Chamber is ready to purchase it from the cultivators.—I have, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 10*th May* 1859.

No. 53 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—With reference to my letters to your address of the 5th and 10th instant, I have now, by direction of the Committee, to inform you that a further supply of fresh New Orleans Cotton Seed being now available, the Chamber is desirous that Government will undertake the distribution of 25 bags, now sent, in Guzerat and Khandeish. And as the Oomrawattee districts, so far as the Chamber is aware, have never been fairly tried with the American Seed, it deems it of importance to get a portion of this Seed sent up there, which it trusts the Government will be able and willing to do.

With this, as with the Seed previously sent, the Chamber desires to leave the officers entrusted with it to exercise their own discretion as to the disposal of it in the way most likely to further the objects desired.

I am further directed to send you 30 bags of the same Seed, which the Chamber is desirous of having transmitted to the Dharwar Collectorate to the address of Dr. Forbes, the Superintendent of the Gin Factory, to enable that Officer to prosecute the experiments in which it learns that he is engaged, and which the Chamber regards as of considerable importance.

The season being so far advanced, the Committee has further to beg that the Seed may be despatched to the different points as promptly as possible.—I have, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 14*th May* 1859.

No. 1077 OF 1859.

REVENUE DEPARTMENT.

From H. B. E. FRERE, Esq.,
Commissioner in Sind,

TO THE CHAIRMAN BOMBAY CHAMBER OF COMMERCE.

SIR,—In reply to your letter of the 10th instant, I have the honor to inform you that the five bags of Cotton Seed have arrived in this port, and will be despatched at once to the Collector of Hydrabad, who will send two bags to Captain Cowper, Deputy Collector of Taroosha, and three bags to Lieutenant Tyrwhitt at Meerpoor.

I shall inform you of the course adopted by these gentlemen for giving effect to the wishes of the Chamber, and the result of the experiment will be fully reported at the close of the season. —I have the honor to be, &c.,

(Signed) H. B. E. FRERE,
Commissioner in Sind.

Commissioner's Office, Kurrachee, 17th May 1859.

No. 55 OF 1859.

To H. B. E. FRERE, Esq.,
Commissioner in Sind.

SIR,—Referring to my letter of the 10th instant and to the small supply of American Cotton Seed, despatch of which was therein advised, I have now to inform you that a further and larger quantity of the same Seed being now available, the Chamber has shipped 25 bags more per Bugla *Futtay Sallam*, Nacqua Walla, consigned to the Collector of Customs at Kurrachee. Regarding Sind with much interest, and desiring that the adaptability of its soil and climate to the growth of Cotton should be fairly tested, the Chamber would entrust the distribution of this Seed entirely to your discretion, feeling very confident that the arrangements best calculated to further the objects in view will be adopted.

The Chamber will anxiously await reports on the progress and success of the cultivation.—I have, &c.,

(Signed) ROBERT RYRIE,
Chairman.

Bombay Chamber of Commerce, 14*th March* 1859.

To ROBERT RYRIE, Esq.,
Chairman Chamber of Commerce.

MY DEAR SIR,—The 115 bags of New Orleans Cotton Seed, the disposal of which I undertook as a member of the Chamber's Committee, were distributed as follows:—

25 bags were shipped to Kurrachee, and the Bills of Lading handed by me to the Secretary of the Chamber for transmission to the Deputy Collector of Customs in Sind.

45 bags were shipped to Vingorla, consigned to the Agents there of Cursetjee Merwanjee Boyce, of Belgaum, to whom 30 bags were to be sent for disposal throughout the Belgaum and Dharwar districts; and the remaining 15 bags to be forwarded to Dr. Forbes at Dharwar, as a present from the Chamber, who have, I believe, addressed him direct.

30 bags were shipped to Bhownuggur, to Merwanjee Nusserwanjee Bhownuggria, for distribution in the Cotton Districts of Gogo, Dhollera, and Bhownuggur.

10 bags were shipped to Broach (*viá* Surat), to Bomanshaw Byramjee, for disposal in the Broach districts.

5 bags were shipped to Surat, to Byramshaw Doshabhai Paruck, for distribution in that neighbourhood.

The 45 bags for Vingorla were the first to be despatched, and they were carefully prepared to withstand the rain they were not unlikely to meet in transit from the coast to Dharwar and Belgaum.

Enclosed is English version of the Guzeratee letters which I caused to be written to the various parties entrusted with the disposal of the Cotton Seed, to which I beg to refer. I also have the pleasure to hand a Guzerattee rendering of the same.

You will observe I have asked the various parties to let us have some account of their progress from time to time.

I experience great difficulty in obtaining from the various

Agents here, accounts of the expenses they have incurred for freight, &c., in forwarding the different parcels of Seed, which (expenses) I promised on behalf of the Chamber to defray. Their ways of business are different from ours, and I fear it will yet be some time before the necessary information can be obtained; and, as I am on the point of leaving Bombay for some months, I leave instructions for an account of the various sums disbursed to be handed you as soon as possible.—Believe me, my dear Sir, yours very faithfully,

(Signed) R. WALLACE.

Bombay, 15*th June* 1859.

(Copy.)

DEAR SIRS,—Your Agents in this port, have kindly undertaken on your behalf the distribution among the cultivators of the large Cotton-growing districts in your neighbourhood, of bags of choice American New Orleans Cotton Seed, with the view to its being all sown and cultivated during the approaching season.

You may perhaps be aware that there has been a strong desire on the part of manufacturers in England for many years past to improve the quality of the Cotton now shipped so extensively from Bombay to the English Market; and recently the principal merchants and manufacturers in Liverpool and Manchester have formed themselves into an association called "The Cotton Supply Association," with a view more especially to improving the quality and increasing the supply of Indian Cotton.

You are probably aware that the Cotton of America, which is a much larger article of import into England than that from Bombay, is likewise of much longer staple, and of very superior quality, and that it fetches a much higher price in the English market; the Cotton Supply Association have therefore decided that no better method could be devised of improving the quality of Indian Cotton, than by introducing extensively the cultivation of American Cotton Seed; and with this view they despatched to Bombay a liberal supply of a very excellent description, grown most extensively in America, and called New Orleans Cotton Seed. This has recently been received here by the Bombay

Chamber of Commerce, who have asked us to undertake the distribution of a considerable portion of it throughout the principal Cotton-growing districts.

It is of the same description of American Seed as that which has been so successfully cultivated in the Dharwar Cotton districts for several years past, and we have no doubt it will be equally suitable for the districts in your neighbourhood, and that it will yield a description of Cotton much more valuable than the ordinary produce of the country, and which will fetch a higher price in the Bombay market.

The Cotton Supply Association of England and the Chamber of Commerce of Bombay having been put to very considerable expense in importing this Cotton Seed from America into India, and in forwarding it to your good care, they would wish that you should, if possible, make sales of what we send you, in the bazar or otherwise, at a moderate price, if you find it practicable; and they think that it is likely in that way to be better appreciated and more carefully cultivated than if the Seed were distributed gratuitously.

We would wish, however, to leave ample discretion in your hands, and you must bear in mind that the great object to be attained is that *all* the Seed we send you shall, if possible, be sown and cultivated in your Cotton districts during the season now approaching. If, therefore, you consider it necessary or advisable, in order to secure this end, you are perfectly at liberty to dispose of the Seed quite gratuitously, doing so in such a manner as will best secure the objects in view, namely, the careful cultivation of the article.

We have no doubt that the cultivation of this description of Cotton will rapidly increase in future seasons in your neighbourhood, and that the result obtained from the present Seed will be exceedingly favourable and encouraging. There is only one point on which we would request you to caution the cultivators, and that is, they must be careful to keep the American Cotton plant quite separate and distinct from the Cotton of the country; they must not mix the two descriptions of Seed when sowing, or the mixed crop which will be produced will be much deteriorated in value.

In the Southern Mahratta Country some of the cultivators have fallen into this mistake, either through ignorance, or in the hope of inducing purchasers to believe that their whole crop

was American Cotton; and the result has been much to their own disadvantage, as the two descriptions of Cotton are so different in quality and staple that they do not clean well together, and each hurts the other in that process; and English manufacturers will not give a good price for a mixed article, which is very difficult to manufacture into yarn and cloth, owing to the staple being of different lengths; and the price obtainable in Bombay for such a mixed article is likewise *very* much less than for pure American Cotton.

With proper care given, however, to keeping the American Cotton Seed quite separate by itself, a most valuable article will, we have no doubt, be produced, which will yield a very handsome return to the cultivators,—much more so than the native Cotton, the usual produce of the country.

We trust you will use every exertion and your best influence to have the entire quantity of Seed we now send you, cultivated during the approaching season; and we have no doubt you will lend us your best assistance in this matter, which promises to be so highly conducive to the prosperity of the country.

We shall be glad to hear from you from time to time as to how you progress; and we beg to thank you beforehand, in the name of the Bombay Chamber of Commerce, for the trouble you are about to undertake.

On receiving from your friends here a memorandum of the expenses they have incurred in forwarding the Cotton Seed to your care, we shall at once defray them.—We are, dear Sir, &c.,

(Signed) WALLACE & Co.

Bombay, May 1859.

Translation of an Extract from a Letter in the Guzerati language from Byramshaw Dosabhoy, dated Surat, 8th June 1859.

I have noted the contents of your letter containing detailed instructions as regards sowing of American Cotton Seeds in the Surat and Broach Collectorates. The Seeds in question do not grow well in these parts. Some time back, Mr. Daley paid us a visit, and he tried these Seeds for two or three years, but without success. The Seeds shoot out earlier, and consequently the climate of the month of "Asho" (corresponding with the English

month October) acts very injuriously on the plants. At one time the authorities made a proposal to the cultivators of our district, that should they grow the American instead of native Seeds, there would be a general remission of tax for that year. The cultivators accepted the proposal and acted accordingly, but the result was a great loss to them, although they were not required to pay the tax for that year. I had a personal interview with these cultivators, and I explained to them the advantages that might accrue to them by sowing the American Cotton Seeds, but they one and all declined to have anything to do with them.

Under these circumstances the five bags of Seeds forwarded by you, and landed by us, from the vessel, lie idle with us. Those for Broach shall be sent off as soon as a vessel arrives here.

P. S.—The cultivators would not be induced to grow the Seed unless the Collector uses his authority for that purpose.

No. 1271 OF 1859.

REVENUE DEPARTMENT.

To J. MAWSON, Esq.,
Secretary to the Chamber of Commerce, Bombay.

SIR,—I am directed by the Right Honorable the Governor in Council to forward herewith, for submission to the Chamber of Commerce, copy of a letter from the Revenue Commissioner, Southern Division, No. 561, dated the 16th ultimo, and of the Abstract Statement therein referred to, showing the extent of land under Cotton cultivation in each of the Collectorates mentioned in the margin, during the year 1858-59, contrasted with the year 1857-58.

Poona,
Ahmednuggur,
Sholapoor,
Belgaum,
Dharwar.

2. A copy of the above papers has also been sent to Mr. G. R. Haywood, Secretary to the Manchester Cotton Supply Association.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 6th April 1859.

No. 561 OF 1859.

TERRITORIAL DEPARTMENT, REVENUE.

From J. D. INVERARITY, Esq.,
Revenue Commissioner Southern Division,

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—I have the honor to submit, for the information of the Right Hon'ble the Governor in Council, an Abstract Statement showing the extent of land under Cotton cultivation in each of the Collectorates of Poona, Ahmednuggur, Sholapoor, Belgaum, and Dharwar, during the year 1858-59, in contrast with the same for the year 1857-58.

2. Particulars for the Sattara Collectorate not having yet been supplied by Mr. Rose, are not included in the present statement, but a supplementary statement will be hereafter furnished.

3. There have been, it will be seen, in the Collectorates under notice, acres 6,53,442, 15 goontas planted with Indigenous Cotton during the year 1858-59, being an increase on the extent so planted in 1857-58 of acres 56,001, 19 goontas. Increase is observable in every one of the Collectorates except Dharwar, where there was a falling-off to the extent of acres 37,840, 22 goontas, which Mr. Ogilvy, the Collector, states, "appears to have been caused by the small price realised from it, and the growing preference of the ryots for the Exotic kind."

Exotic Cotton was, as in the previous year, planted only in the Collectorates of Belgaum and Dharwar, and covered in both Collectorates an area of acres 1,06,964, 4 goontas in the year 1858-59, being an increase on the cultivation of 1857-58 of acres 4,663, 13 goontas. The increase in Belgaum was acres 71, 9 goontas, and in Dharwar 4,592 acres, 4 goontas.—I have the honor to be, &c.,

(Signed) J. D. INVERARITY,
Revenue Commissioner Southern Division.

Revenue Commissioner's Camp, Rutnagiree, 16th March 1859.

APPENDIX C.

Abstract Statement showing the extent of Exotic and Indigenous Cotton Cultivation in the Collectorates of Poona, Ahmednuggur, Sholapore, Belgaum, and Dharwar, during the years 1858-59 and 1857-58, and the increase and decrease in the former year.

Collectorates.	Extent of Cotton Cultivation.												Total Cultivation in 1858-59.			
	In 1858-59.						In 1857-58.						Exotic Cotton.		Indigenous Cotton.	
	Exotic Cotton.			Indigenous Cotton.			Exotic Cotton.			Indigenous Cotton.						
	Government Land.	Inam Land.	Total.	Government Land.	Inam Land.	Total.	Government Land.	Inam Land.	Total.	Government Land.	Inam Land.	Total.	More than 1857-58.	Less than 1857-58.	More than 1857-58.	Less than 1857-58.
	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.	Ac. G.
Poona	.....	.....	.....	8,857 25	466 11	9,323 36	.....	.....	.....	2,904 30	206 30	3,111 20	.....	.....	6,212 16	...
Ahmednuggur	.....	.....	.....	6,384 13	305 1	6,690 14	.....	.....	.....	2,220 9	84 18	2,304 27	.....	.....	4,394 27	.....
Sholapore	.....	.....	.....	1,42,249 26	35,382 16	1,77,632 2	.....	.....	.....	85,462 16	23,173 34	1,08,636 10	.....	.....	68,995 32	.....
Belgaum	733 27	824 15	1,558 2	1,24,667 19	1,20,119 34	2,44,787 13	703 22	783 11	1,486 33	1,16,179 19	1,14,368 28	2,30,548 7	71 9	.....	14,259 6	.....
Dharwar, including the Jagheer States	61,471 8	43,934 34	1,05,406 2	1,40,327 21	74,672 9	2,14,999 30	58,404 8	42,409 30	1,00,813 38	1,51,967 11	1,00,873 1	2,52,840 12	4,592 4	.....	.....	37,840 22
Total	62,204 35	44,759 9	1,06,964 4	4,22,486 24	2,31,005 31	6,53,442 15	59,107 30	43,193 1	1,02,300 31	3,58,734 5	2,38,706 31	5,97,440 36	4,663 13	.....	93,842 1	37,840 22
	59,107 30	43,193 1	1,02,300 31	3,58,734 5	2,38,706 31	5,97,440 36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Net Increase	3,097 5	1,566 8	4,663 13	63,702 19	.....	56,001 19	.....	.....	.....	.....	.....	.....	4,663 13	.....	56,001 19	.....
Net Decrease	.....	.....	.....	.....	7,701 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Revenue Commissioner's Camp, Rutnagherry, 16th March 1859.

(Signed) J. D. Inverarity,
Revenue Commissioner Southern Division

No. 2683 OF 1859.

REVENUE DEPARTMENT.

Memorandum.

The Acting Secretary to Government presents compliments, and with reference to the correspondence marginally quoted, begs to forward to Mr. H. Brooke, copy of a memorandum from the Revenue Commissioner, Northern Division, No. 1200, dated the 6th instant, and its accompanying communication from Mr. Daley. Mr. Ellis requests that Mr. Brooke will favor him with the forms of statement referred to, for Mr. Daley's guidance.

Letter from Mr. Brooke, dated 10th March 1859.
Government Memorandum, No. 1061, dated 22nd March 1859.
Letter from Mr. Brooke, dated 23rd March 1859.
Government Letter No. 1192, dated 30th March 1859.
Letter from Mr. Brooke, dated 2nd April 1859.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 11th July 1859.

No. 1200 OF 1859.

REVENUE DEPARTMENT.

The accompanying letter from the Superintendent of Cotton Experiments, Ahmedabad, is in reply to a communication made to him by the Revenue Commissioner, Northern Division, requesting him to state in detail what measures he intended taking with a view to carry out the experiments in cotton cultivation ordered by Government in their Resolution dated 30th March 1859.

No. 23, dated 23rd June 1859.

Vide correspondence ending with the Acting Secretary's Memorandum No. 1612, dated 27th April 1859.

2. The Revenue Commissioner wrote to Dr. Forbes, as suggested by Mr. Ellis, for forms of Statements for recording the results, but they have not yet been received; and he is unable to decide upon Mr. Daley's request for three Carkoons, but it does not appear what, if Mr. Daley and his assistant examine all the fields, the Carkoons are to do, unless it be the mere writing up

the statements, which would be better done by Mr. Daley and his assistant themselves.

3. The Revenue Commissioner presents compliments, and requests the Acting Secretary will obtain from Mr. Brooke, who is believed to have been appointed Secretary to the Chamber of Commerce, Bombay, and transmit to this Department, the required forms, if that now transmitted is deemed insufficient for the purpose.

4. The red ink additions on the form are made in this Office. Mr. Daley should also record, in each instance, the quantity of Seed sown and the out-turn of Seed and Cotton.

(Signed) E. G. FAWCETT,
Revenue Commissioner Northern Division.

Revenue Commissioner's Office, Poona, 6th July 1859.

No. 23 OF 1859.

To E. G. FAWCETT, Esq.,
Revenue Commissioner Northern Division, Poona.

SIR,—In reply to your letter No. 821, of the 11th ultimo, I have the honor to inform you that it is my intention to adopt the following measures to carry out the orders of Government, conveyed in the 3rd para. of Mr. Secretary Ellis's letter No. 1192, dated 30th March last:—

To divide the four bags and three barrels of New Orleans Cotton Seed which I received on the 18th instant, into four portions, and to sow them in the talookas of Dholka,, Veerumgaum, Dundooka, and Gogo; a part of the seed to be sown in each of the above talookas after the first heavy showers of rain; a second portion when the ryots sow their Cotton, and the remainder after the Dussera, when the cold weather crop is sown. The Seed to be sown the native way, in drills, in black, red, and white soils. Three Carkoons to be entertained on Rupees 10 a month each, and to be stationed in the talookas of Veerumgaum, Dholka, and Gogo, to prepare the weekly reports required. The experiments at Dundooka and Gogo to be placed under my assistant, and those at Veerumgam and Dholka under me, but the whole of the fields to be examined by me. Copy of the Form of

the Weekly Report in English is annexed; the Carkoons will be supplied with lithographed Goozerattee ones. A copy of each of the Weekly Reports will be forwarded direct to the undermentioned gentlemen,—Secretary to Government in the Territorial Department, Revenue Commissioner Northern Division, and the Collector of Ahmedabad.—I have the honor to be, &c.,

(Signed) C. DALEY,
Superintendent Cotton Experiments.

Dholka, 23*rd June* 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—I have the honor to acknowledge receipt of your Memorandum No. 2683 of 1859, and dated 11th instant, referring to letters from Mr. Fawcett and Mr. Daley respecting the proposed cotton experiments at Gogo and elsewhere, and enclosing a form of Weekly Report.

In reply I beg respectfully to submit a form slightly differing from that above mentioned, and which, I believe, would furnish some useful particulars.

The weather report should, I think, be kept daily, as it would be difficult to describe accurately the general character of the weather for an entire week, particularly when a great change might have taken place in the state of the atmosphere during that period. I enclose a form similar to that we have had in use at Hooblee, where our own experiments have been conducted.

Upon the subject of sowing, I have observed that it is desirable to sow when the soil is moderately or even quite dry, as the Seed will remain for months in the ground without injury as long as the weather continues dry. It will come up with the first heavy showers, at whatever time it may happen to have been sown. As an instance of this, I may mention that some American Seed sown in Bombay on the 29th March, when the soil was quite dry and hot, did not vegetate till the 11th June, having remained in the ground 2½ months uninjured. If, however, the seed is sown in very wet weather it is almost certain to rot.

Mr. Daley mentions that he intends sowing in drills, to which there is no objection, but he does not state the width of the drills

from each other; this should be four feet, and the plants, when about eight inches high, should be weeded out so as to leave only one strong plant at every two feet distance. It is desirable that this weeding out should be done in moist weather.

I may mention that the season is now getting over-late to try the experiment of early sowing, as, according to my experiments, the Seed should be in the ground before the first heavy rains set in. Seed sown on the 30th May in Bombay came up on the 11th June during very heavy rains, and the plants are now fully 12 inches high.

Respecting the Carkoons to be employed, I apprehend that it will be necessary to have some one constantly on the spot to see that the work is properly done, to employ and pay the labourers, and make out the statements.

If not objectionable I would suggest that the Weekly Reports might be forwarded for the Secretariat to the Chamber of Commerce, and if agreeable to the Government, I should be happy to reply direct and in an unofficial form to any enquiries Mr. Daley might wish to make; it seems to me that such a course might tend to promote expedition, and save the Government the trouble of recording much minutiæ which may ultimately prove to be unimportant.—I have the honor to be, &c.,

(Signed) H. BROOKE.

Bombay, 14*th July* 1859.

No. 2774 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.

SIR,—With reference to your letter dated the 14th instant, I am directed to forward for your information the accompanying copy of the Resolution of Government, which has been communicated to the Revenue Commissioner Northern Division.—I have the honor to be, &c.,

No. 2773, dated the 16th July 1859.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 16*th July* 1859.

No. 2773 OF 1859.

REVENUE DEPARTMENT.

Copy of the Resolution passed by Government on a Letter (with accompaniments) from Mr. H. Brooke, dated the 14th July 1859, having reference to the Cotton Experiments to be conducted by Mr. Daley in Guzerat.

Copies forwarded to the Revenue Commissioner Northern Division for communication to Mr. Daley.

2. The suggestion at the close of Mr. Brooke's letter should be taken advantage of, and Mr. Daley should be directed to apply to that gentleman for any further information he may require.

3. Any expense which may be incurred should be charged in a contingent bill.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 16th July 1859.

No. 2827 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.,
Secretary to the Chamber of Commerce, Bombay.

SIR,—I am directed to forward the accompanying copy of a letter, dated 22nd June 1859, from Dr. Forbes, Superintendent Cotton Gin Factory at Dharwar, and to request that you will favor the Right Hon'ble the Governor in Council with any suggestions that may occur to the Chamber on the subject of its concluding paragraph.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 19th July 1859.

To J. D. INVERARITY, Esq.
Revenue Commissioner Southern Division.

SIR,—I beg to acknowledge the receipt of your Memorandum No. 1171 of 1859, and in reply to inform you that the Macarthy

Cotton Gin has only just been received. It will be unpacked on my return to Dharwar, which I hope now will take place in a few days.

2. I shall lose no time in forwarding my opinion of the machine, as soon as I have had an opportunity of testing its qualifications, but I would beg to represent that a little time may be required for this purpose. The monsoon has now set in, and during wet weather Cotton cannot be properly cleaned by any implement. Kuppas made use of for such a purpose should be to a certain extent sun-dried, otherwise no opinion could be fairly formed of what the performance of the machine might be under different circumstances.

3. Not having the correspondence with me to refer to, I am unable to determine what the varieties of Cotton were upon which the Supply Association "required an extension of cultivation" report. As far as I remember, however, only three descriptions were sent home for their opinion.

4. The first of these was "Dharwar-grown Egyptian Cotton," which was not very favorably received. In the explanation sent with it, mention was made of its not being well adapted for the soil and climate of these districts, and owing to the objections entertained towards it by the ryots and dealers, it is not likely that its cultivation will be greatly extended.

5. The second sample was "Factory Cotton," upon which a better judgment was pronounced. I have carefully preserved all the Seed of this variety, and have made the necessary arrangements for its further cultivation when sowing time arrives. Natives entertain a very favorable opinion of it for their own spinning, and I have no doubt that the ryots will apply themselves to its cultivation as soon as Seed can be provided in sufficient quantity.

6. The third description sent home in a packet was a specimen of "unmixed Dharwar New Orleans." It was sent for the purpose of indicating the quality of article that might be obtained from this country for the home market; provided care was taken in having it separately grown. The judgment pronounced upon it was highly favorable, though not more so than I had anticipated.

7. The cultivation of this variety of Cotton has of late years greatly increased, and it continues to extend, but it will not confer its full advantages upon the home market until some measure is adopted that will prevent the adulteration now invariably practised.

8. I have often represented this evil, and it is one which is well worth the attention of the Cotton Supply Association. If no legal enactment can be made to prevent the mixed cultivation of two distinct varieties of Cotton, which is afterwards disposed of under a false name, I have no doubt that much might be effected by a combination on the part of the mercantile community, such as would discourage the purchase of the mixed article, and, at the same time, secure to the cultivator the comparatively increased value which the pure one has now been shown to be worth.—I have the honor to be, &c.,

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Camp, Chinchwar, Bedce District, 22nd June 1859.

No. 89 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—By direction of the Committee of the Chamber of Commerce, I have the honor to acknowledge receipt of your letter No. 2827 of 1859, and dated 19th July, handing copy of a letter from Dr. Forbes on the subject of the Macarthy Gin, &c.

With respect to para. 8, deprecating the practice of adulterating the American with native Cotton, an evil to which the Chamber has so often called attention, the Committee regrets that it is quite out of the power of the mercantile community of Bombay to do anything effective in the matter beyond paying a less price for the adulterated article, but they would venture to suggest that as it now appears hopeless to rouse the cultivators and up-country dealers to a sense of their own interest in this respect, power might be given to the Collector of those districts where the American Cotton is grown to compel the cultivators, by the infliction of moderate fines or otherwise, to weed out all the native plants from their fields of American Cotton. As such a course would eventuate in so great an advantage to the growers themselves, the Chamber think that so small an interference with private rights would under the circumstances not be objectionable, as they are disposed to believe that the American Kuppas is not so

much mixed with the Native, as the Cotton deteriorated by growing together with native plants, and thus becoming hybridised. Were the native plants weeded out, the seed of the Exotic variety would not deteriorate as it is found to do when growing in close contact with the native plant.

The Chamber cannot coincide with Dr. Forbes's views as to the desirability or even practicability of a combination on the part of the merchants to purchase only specific qualities of goods. Trade combinations of all kinds are very objectionable, and seldom or never realise the expectations formed by their promoters.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 9th August 1859.

No. 2760 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.,
Secretary to the Chamber of Commerce.

SIR,—I am directed to forward the accompanying copy of a letter from the Collector of Broach, and to request that the Chamber will have the goodness to favor Government with their opinion on the samples of Cotton therein referred to, and which are herewith transmitted.

No. 868, dated the 28th June 1859, to the address of the Revenue Commissioner, Northern Division.

2. Meanwhile, I am to state, instructions will not be issued to the Collector regarding the disposal of the rest of the Cotton.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 15th July 1859.

No. 368 OF 1859.

From the COLLECTOR OF BROACH,

To the REVENUE COMMISSIONER, NORTHERN DIVISION, Poona.

SIR,—I have the honor to report the conclusion of the Cotton experiment directed in the correspondence received under your Memorandum No. 1295, dated 3rd July last.

2. An acre of black soil was selected at Broach, and one of red soil at Jumboosur, and great care was taken to carry out the experiment completely. One half of each acre was left unirrigated. The other halves received each two copious waterings,—the first in December, the rain having fallen late and plentifully; the second while the bolls were filling.

3. The return was as follows :—

BROACH, BLACK SOIL.

Irrigated.		*Unirrigated.*	
Clean Cotton....	41½ seers.	Clean Cotton....	34½ seers.
Seed.....	86¾ „	Seed.....	72¼ „
Total..	128¼ „	Total..	106¾ „

giving an increase for irrigation of

Clean Cotton....	7 seers.
Seed.....	14½ „
Total..	21½ „

JUMBOOSUR, LIGHT SOIL.

Irrigated.		*Unirrigated.*	
Clean Cotton....	63 seers.	Clean Cotton....	57 seers.
Seed.....	134 „	Seed.....	134 „
Total..	197 „	Total..	191 „

giving an increase for irrigation of clean Cotton 6 seers. Unless, therefore, there should be a marked improvement in the staple of the irrigated Cotton, to ascertain which I have sent you by banghy samples of each sort, the experiment must, I fear, be considered a failure.

4. I beg to annex for sanction two bills of the cost which has been incurred, aggregating Rupees 37-12-9, and to request

instructions as to the disposal of the rest of the Cotton.—I have the honor to be, &c.,

(Signed) L. H. B. TUCKER,
Collector.

Broach, 28th June 1859.

No. 3058 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.,
Secretary to the Chamber of Commerce.

SIR,—In continuation of my letter No. 2760, dated the 15th ultimo, I beg to annex a copy of further papers relating to the produce of Cotton in irrigated lands, and I am directed to request that the Chamber will have the goodness to favor Government with their opinion on the samples of Surat Cotton herewith transmitted.—I have the honor to be, &c.,

Memorandum from the Revenue Commissioner, Northern Division, No. 1388, dated the 27th July 1859, with accompaniment.

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 4th August 1859.

No. 591 OF 1859.

REVENUE DEPARTMENT.

From A. D. ROBERTSON, Esq.,
Acting Collector of Surat,

To E. G. FAWCETT, Esq.,
Revenue Commissioner, Northern Division, Poona.

SIR,—In reply to your letters as per margin, I have the honor to state that my predecessor Mr. Inverarity, had caused the experiments therein alluded to to be made in both the black and Gorat soil, and the following is the result of the experiments :—

1. No. 1295, dated 3rd July 1858.
2. No. 366, dated 28th February 1859.
3. No. 1192, dated 5th July 1859.

BHESTAN VILLAGE.

Black Soil.

In this village the yield of Cotton from irrigated land in half a beega was one maund and 37¾ seers, and that of unirrigated Cotton in the same extent of land was 2 maunds and 9¼ seers.

Though the quantity produced from irrigated land is less than that produced from unirrigated land, the former is better in quality, it being stronger and firmer in fibre than the latter, which is comparatively weak.

The reason assigned for less being produced in irrigated land is that irrigation is not congenial to Cotton plants in black soil.

ULTHAN VILLAGE.

Gorat Soil.

2. The yield of Cotton from irrigated land in half a beega was 2¼ maunds, and that of unirrigated Cotton in the same extent of land was 1¼ maunds.

Here the Cotton produced from unirrigated land, though less in quantity, is better in quality than that produced by irrigation. It is supposed that in Gorat soil, by irrigation, the yield is heavier than it is where irrigation is not had recourse to, but the Cotton produced is not good in quality.

3. I beg to forward herewith, in four different parcels, a small quantity of Cotton produced in the irrigated and unirrigated lands in both the villages.—I have the honor to be, &c.,

(Signed) A. D. ROBERTSON,
Acting Collector.

Surat, Collector's Office, 18th July 1859.

No. 1388 OF 1859.

REVENUE DEPARTMENT.

Submitted to Government with reference to para. 4 of the Revenue Commissioner's Memo. No. 1188, dated 5th July 1859.

2. The samples will be forwarded when received; the Chamber of Commerce, Bombay, will, it is presumed, be referred to as to their quality.

3. The Collector will be requested to retain the Cotton pro-

duced from the experiments till the receipt of instructions from Government as to its disposal.

(Signed) E. G. FAWCETT,
Revenue Commissioner, Northern Division.

Revenue Commissioner's Office, Poona, 27th July 1859.

No. 93 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—By direction of the Committee of the Chamber of Commerce, I have the honor to acknowledge receipt of your letters, No. 2760 and 3058 of 1859, and dated 15th July and 4th ult., referring to the subject of irrigation of Cotton, and sending samples for the opinion of the Chamber.

The quality of the Cotton does not appear to be materially affected, but if anything, from the irrigated black soil appears rather weaker than the unirrigated, and the reverse to be the case with that grown in light soil. As therefore the expense must be considerable and the increased out-turn unimportant, the Committee are of opinion that the question of irrigation in the districts alluded to may be regarded as satisfactorily disposed of.

It may be stated as a general principle that when once the plant has attained its full growth and has come into bloom, the less water it receives the better, as the effect of watering at such a period is usually to cause the bolls to drop off, and the plant has again to put forth new fruit-bearing branches; the effect therefore is to delay, without materially affecting the ultimate out-turn of the crop.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 8th September 1859.

No. 3176 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.,
Secretary to the Chamber of Commerce.

SIR,—With reference to your letter, No. 75, dated the 4th ultimo, I am directed to transmit the accompanying copy of one from Dr. Forbes, and to state that under the circumstances therein reported it would be useless to send a Macarthy Gin to Dharwar.

No. 72, dated the 26th July 1859, to the address of the Revenue Commissioner, Southern Division.

2. If, however, the Chamber should wish a Gin of this description tried in Guzerat, Government will have much pleasure in directing Mr. Daley to carry out experiments with it, provided the Chamber will make over one of the Gins offered in your letter under reply.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 11*th August*, 1859.

No. 72 OF 1859.

To J. D. INVERARITY, Esq.,
Revenue Commissioner, Southern Division.

SIR,—In reply to Government Resolution No. 2734 of 1859, and in continuation of my letter to your address dated 22nd ultimo, I have the honor to state that in my opinion it is not desirable that the two additional Macarthy Gins placed at the disposal of Government by the Chamber of Commerce should be sent to Dharwar.

2. I have just discovered on opening the case, that the new machine is a counterpart of one which has been at my disposal for the last twelve months, bearing upon its castings the similar name of "Dunlop, Manchester," as its maker, and it is only now that I have become aware of its being identical with the "Macarthy Gin."

3. The article previously in my possession was brought to the factory by the Agent of Messrs. Brice & Co., in consequence of its

having failed in his hands, and the results of the trials made with it in his presence were then recorded.

4. The chief cause for which he found it necessary to discontinue its use, was the very serious injury which it inflicted upon the Cotton staple, and as far as I could observe this appeared to be caused by the friction of the horizontal steel blades, in working against each other.

5. To ascertain the question of economy in work, the machine was repeatedly tried against a ten-saw Gin (which requires the same amount of labour), and it was found that whilst the former was occupied with 2 lb. 14 oz. of kuppas, the latter had cleaned ten pounds; at the same time the damaged state of the fibre from the machine was sufficiently apparent.

6. These experiments were made with the machine in the exact condition in which it was brought in from the districts. It was subsequently examined and put to rights, as far as any error in its proper adjustment could be ascertained, and it has since then been tried on many occasions, with an evident improvement as regards the quality of its performance, but no material difference with respect to quantity.

7. The conclusion I came to at that time (before being aware that it was the Macarthy Gin), and the opinion I still entertain, is that the machine will not answer for cleaning the native Cotton of these districts; nor is it likely that it can be generally introduced, for the following reasons.

8. In the first place the amount of manual labour required to work the article, and the comparatively small out-turn that it yields, will prevent the ryots and dealers from having recourse to it in preference to the churka and foot roller, knowing also as they do that the two latter articles inflict no injury whatsoever upon the fibre of their produce, which it is absolutely necessary should be the case in as far as the supply of the native market and home consumption are concerned.

9. Secondly, in mechanical construction the machine is not suited to the rude habits of natives. It is impossible to impress them with the necessity of not handling and interfering with the nuts, bolts, screws, and other parts of any implement placed at their disposal. This propensity was for a long period a source of trouble with our Saw-Gins, until at length a protection to them was contrived which put a stop to the evil. The upper steel blade of the "Macarthy Gin" has a number of these bolts, plates, and

screws, upon the correct adjustment of which I imagine the due performance of the machine must depend, and these to a certainty would be at once tampered with.

10. It is important to observe that I was informed that the injury sustained by the cotton fibre from the machine was at the commencement trifling compared to what took place after it had been some time in use, and which on the occasion of my first trial of it was greater than I had ever seen from the worst Saw-gin. How far this might have been the result of native interference could not be determined. But even admitting that such had occurred, the fact would only serve to establish the objection I have named, and to show that any implement that is liable to be put out of order will not suit for native hands.

11. The present damp state of the weather precludes any trial of the machine just received, but I shall test its performance as soon as practicable, and report any difference that may be observed between it and the previous one.—I have the honor to be, &c.,

(Signed) G. F. FORBES,
Superintendent Cotton Gin Factory.

Dharwar, Cotton Gin Factory, 26th July 1859.

No. 94 OF 1859.

To B. H. ELLIS, Esq.,
Acting Secretary to Government, Bombay.

SIR,—By direction of the Committee of the Chamber of Commerce, I have the honor to acknowledge receipt of your letter, No. 3176 of 1859, and dated 11th ult., referring to the experiment with the Macarthy Gin in Dharwar.

The experience of Dr. Forbes, as well as that of Mr. Fleming, appear to confirm the view that these Gins will not be suited to the use of the natives, but as the Cotton-growing Association have sent them out, the Chamber will gladly avail themselves of your offer to transmit one to Mr. Daley for experiment in Guzerat, when the out-turn and expense compared with that of the native churka can be ascertained.

It may, however, be observed, that the machine sent to Dr. Forbes for examination and experiment, having been previously in use for some time, and being apparently out of order, it is possible

that his experiments with the new Gin will be more satisfactory as regards quality than those with the former Gin, but the small out-turn will, it would appear, be fatal to its extended use; its liability to derangement must likewise be a very serious objection to it, particularly in a climate like India, and with people who possess so little mechanical knowledge.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 8th September 1859.

To H. BROOKE, Esq.,
Secretary Chamber of Commerce.

DEAR SIR,—I beg to hand you copy of a letter I have addressed to the Secretary to Government respecting the "Macarthy" Gin, and duplicates of the samples referred to in my letter, and I am, &c.,

(Signed) JOHN FLEMING.

Bombay, 19th August 1859.

(Copy.)

To B. H. ELLIS, Esq.,
Secretary to Government, Bombay.

SIR,—I perceive by a letter published in the newspapers a few days ago, that Dr. Forbes, of Dharwar, condemns the Macarthy Cotton Gin, as injuring the staple of the Cotton passed through it, and that he attributes the injury to the friction of the horizontal steel blades, in working against each other.

Dr. Forbes's machine cannot be properly adjusted,—the steel blades ought never to come in contact with each other.

I have had one of Dunlop's "Macarthy" Gins in my possession for some time past. It was at work during the whole of the month of May, and although dissatisfied at that time with the amount of work performed by it, I could find no fault with the quality of the Cotton cleaned, so far at least as regards staple.

I take the liberty of offering my experience for the benefit of any Government officer to whom Macarthy Gins may be entrusted.

The principal parts of the machine are :—

1. A roller round which a belt of leather is coiled spirally.

2. A steel blade, technically called "*a Doctor*," which presses against the roller by means of springs.

3. A second blade, moved rapidly up and down by the action of the machine, parallel and close to the first blade, but not in contact with it.

The pressure of the "Doctor blade" against the roller requires to be regulated. If too great the machine will not work freely, and the amount of work done is seriously diminished. I found this the case with my Gin,—the pressure of the Doctor against the roller was too great, and very little Cotton passed through, and the machine worked heavily.

The proper pressure must be adjusted by experiment, and will be easily determined by any one with some slight mechanical knowledge, and who is acquainted with Cotton Ginning.

Another difficulty I encountered in the working of my machine was the passage of seeds through the Gin along with the clean Cotton. I found this to arise from the spaces between the folds of the leather spiral being too great, and the remedy is either to recoil the leather round the roller in closer folds, or, which is equally effective, to pare down the leather on a lathe and so make the spaces shallower. The latter plan was adopted with my Gin, and now no seeds pass through. I beg to submit samples of Cotton cleaned by the Gin in my possession.

No. 1, New Orleans, grown in Dharwar, cleaned previous to the adjustment of the roller.

No. 2, Native Dharwar, also cleaned before the roller was altered.

No. 3, Broach Cotton, cleaned about ten days ago, in damp weather. I cleaned a large quantity of Broach in May, but unfortunately sent it all to England.

I am inclined to agree with Dr. Forbes that this machine is not adapted for native use. It must be worked very rapidly, and requires an amount of exertion which I do not think natives could or at least *would* sustain for any length of time.

Worked by steam or bullock power it might answer. It certainly cleans Cotton well, and it is desirable that it should have a fair trial.

I have been indebted to Mr. Richard Wilson, the engineer to the Bombay Fort Press Company, for the proper adjustment of my Gin, and it is now standing in his work-shop.

I may here add, that as far as I have seen no machine yet invented cleans native Cotton so well as the common native churka. Retaining its principle, an improved machine working more rapidly may surely be devised. Before next Cotton season, I hope to have received from England an improved churka which I have ordered.

Can none of the Officers in charge of the Government Experimental Ginning Establishments suggest improvements in the churka?—I have the honor to be, &c.,

(Signed) JOHN FLEMING.

Bombay, 19*th August* 1859.

No. 95 OF 1859.

To JOHN FLEMING, Esq.,
Bombay.

DEAR SIR,—By direction of the Committee, I beg to acknowledge receipt of your letter of 19th ult., handing copy of a letter to Government on the subject of the Macarthy Gin, and transmitting samples of Dharwar and other Cotton cleaned by the machine.

Your experience fully corroborates the doubt previously felt by the Chamber as to whether this machine was suited for native use, as, apart from the great nicety required in its adjustment, the quantity of Cotton produced is comparatively so small as not to justify the natives in incurring the expense.

Nevertheless, as the Cotton Supply Association have kindly sent out several of their Gins, the Chamber will avail themselves of the suggestion of Government to place one in the hands of Mr. Daley, that experiments may be tried also in Guzerat, where the out-turn can be compared with that from the native churka.—I remain, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 8*th September* 1859.

APPENDIX D.

COTTON FRAUDS.

To the Secretary of the Chamber of Commerce, Bombay.

Sir,—I was duly favored with your letter of the 4th June last, in reply to the communication made to you in March relative to stones, &c., being found in bales of East India Cotton.

I am now directed to transmit a copy of another letter from the Chairman of the Cotton Brokers' Association, with a further complaint of a similar character, which you will be pleased to place before your Committee.

(Signed) T. M. Myers,
Secretary.

East India and China Association, Liverpool, 22nd Nov. 1858.

(*Copy.*)

To Peter Ewart, Esq.

Sir,—Our Association has again had brought before it, by Messrs. J. Wrigley & Sons, the complaint of stones being found in bales of East India Cotton, the effect of which has been to cause fires several times lately in consequence of the ignition in passing through the machine.

We beg that you will again call the attention of the authorities in Bombay to this subject.

A sample of the stones and of the broken teeth of the machine has been forwarded to you.—I am, Sir, &c.,

(Signed) Matthew Jee,
President Cotton Brokers' Association.

Liverpool, 16th October 1858.

To the Secretary of the Bombay Chamber of Commerce.

Sir,—Having noticed in the copy of the Report of your Chamber for 1857-58 (which you have been good enough to forward) at page 15, under the head of "Cotton Frauds," that the stones forwarded to you by the ship *Sebastopol* in April had not been received, I am directed to beg the favor of your applying to Messrs. Ewart, Latham, & Co., to whom they were consigned for their delivery.—I am, &c.,

(Signed) T. M. Myers,
Secretary.

East India and China Association, Liverpool, 26th Jan. 1859.

No. 69 of 1859.

To the Secretary to the Chamber of Commerce.

Sir,—The debris of two Cotton bales sent to me by the Chamber of Commerce for report, have been carefully examined by Dr. Carter (Secretary to the Bombay Branch of the Royal Asiatic Society) and myself; and I have now the honour to inform you that in our opinion it is utterly impossible to ascertain from a mere scrutiny of the debris itself, in what locality it was mixed with the Cotton.

2. Of its constituents, some are Kattiawar stones, some Arabian, some Dekhanee, none Bombay; yet all may have been added to the Cotton in Bombay, from the ballast heaped about the bundles, which are, as it were, so many museums of the geology of the entire sea-board of Southern Asia.—I have the honor to be, &c.,

(Signed) George Birdwood, Assistant Surgeon,
Secretary and Curator Government Central Museum.

Government Central Museum, Town Hall, March 10, 1859.

To J. A. Crowe, Esq.,
Acting Secretary to the Chamber of Commerce.

Sir,—As my hands are much encumbered at present with work that admits of no delay, it may be some weeks before I

shall be able to make a reply to the reference of the Chamber of Commerce in yours of the 10th of March, on the subject of the stones, gravel, &c., sent from England as having been taken from Bombay Cotton.

2. To save the appearance of neglect, perhaps the following may be accepted as provisional; to a considerable extent it may be relied on, a portion of it is open to revision.

3. The gravel consists chiefly of trap, with a large number of minerals of the Zeolite family. It is certainly not marine gravel, and has never been subject to the influence of breakers, or even the rounding and smoothing influences of *rapid* streams: it resembles that washed out of the clay on the banks of a sluggish river, such as those flowing into the Gulf of Cambay. It contains no granite, gnesis, or any of the plutonic or metamorphic rocks, and I have seen in it no remains of nummulite limestone or Guzerat sandstone. It abounds in fragments of bricks and tiles, with seeds, rags, and other rubbish. From these facts the following conclusions flow, on the assumption always, that the adulterating material has been introduced near the spot where it naturally prevails:—

1. Not being marine, it has not been added at any of our sea-ports.

2. The Cotton-growing districts in the Southern Mahratta Country overlie the plutonic and metamorphic rocks. From the absence of these from the gravel, I am satisfied it is not from the southward of Bombay.

3. The small stones found in the clay of the Delta of the Taptee, which constitute the gravel of that river, generally contain fragments from the nummulite limestone, from the absence of these I should infer that the adulterations do not occur at Surat.

4. The Saburmuttee and Mahi run through clay overlaying a hard siliceous standstone full of quartz nodules, with occasional pieces of gnesis. I have found none of these in the gravel, and should assume that it did not belong to either of the rivers just named.

5. The Nerbudda alone remains, and I am very strongly impressed with the conviction that the gravel is from the neighbourhood of Broach.

6. I am too slightly acquainted with the geology of the Cotton-producing districts above the Ghauts to offer any opinion regarding the probability of their being the Cotton adulterators; the

gravel of the Deccan agrees very closely with that of the Nerbudda, but the fragments of the tiles are obviously thrown on the wheel. Most of the Deccan tiles are moulded: the difference is very marked.

7. On visiting Kattiawar and Guzerat in January 1855, I brought with me specimens of the clay, sand, and gravel of all the rivers, as geological illustrations, but which might have been turned to account in any way. They were meant for the Economic Museum, which, for ten years, I had been endeavouring to bring into existence, and from the charge of which I was dismissed for the crime of offering to open it within forty days of the time of my being disencumbered of undesired assistance. I *think* I left them in that establishment—at all events they have fallen aside.

8. I shall now endeavour to obtain further specimens of Nerbudda gravel, and in a subsequent report trust to be able to speak more precisely and positively than I can at present venture to do.—I have the honor to be, &c.,

(Signed) GEORGE BUIST.

17*th March* 1859.

No. 28 OF 1859.

To T. M. MYERS, Esq.,
Secretary East India and China Association, Liverpool.

DEAR SIR,—The Committee of this Chamber directs me to express its regret at the delay which has occurred in replying further to your Association on the subject of the stones and rubbish found in Bombay Cotton. This delay is accounted for by the fact of references being necessary, which it took a long time to answer. Even yet the result of these references is incomplete. I am, however, directed to forward to you copies of letters received from two of the best available scientific authorities as to the locality in which the stones, &c., were mixed with the Cotton.

This Committee is sorry that the reports are so inconclusive, but it will forward to the Association when received the further report promised by Dr. Buist, trusting that it may be found more satisfactory. It doubts, however, if the question of locality can be settled with anything like certainty.

The Committee believes, however, that some of the larger

stones must have been placed in the bales whilst under process of packing at Bombay. It has taken means to make widely and generally known the evils likely to arise from such mixture of foreign substanees, and it trusts that this information will not be entirely without good effect.

The Committee regretted to learn from the accompaniment of your letter of 22nd November last, that a further complaint of stones being found in Bombay Cotton had been received.—Yours, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 26th March 1859.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—In continuation of my letter of date 17th March to the Secretary of the Chamber of Commerce, as to the supposed quarter of the Presidency from which masses of stones and gravel found mixed with the Cotton sent from Bombay to Manchester, from which latter place the contaminating matter was returned, I have the honor to make the following statement.

2. My former communication was stated to have been provisional, merely forwarded to avoid the appearance of neglect or delay, but to be considered only in the light of a series of presumptions. I had then chiefly directed attention to the smaller sized stones; I had not had leisure to try specific gravities, or to adopt other measures for the identification of the larger. The omission has since been remedied.

3. I stated that I considered the Sea Coast, the Southern Mahratta Country, and the Deccan and Surat fully exculpated, and my suspicions were fixed on Broach, or at all events the valley of the Nerbudda.

4. The negative portion of these assumptions I now consider ascertained facts.

5. In addition to the rocks formerly enumerated, I have found the following, of which named specimens accompany this.

6. Granite, Red, much decayed, but from its weight, in spite of this, probably containing Corundrum, a mineral imported in some quantities from Cambay. Dr. Downes, Assay Master, kindly assisted me in these experiments, and we find the specific gravity

of all the specimens to be from 2.58 to 2.63, this last exceeding the weight of fresh portions of the Segmite of Upper Egypt.

7. Hornblende Rock and Hornblende Slate, much water-worn.

8. Hard black Trap in various forms, including tubular or Maccaroni Amygdaloid.

9. Diamond Sandstone, hard and compact, like that of Kattiawar, Belgaum, &c., the only parts where I have seen the rock *in situ*.

10. Quartz in nodules.

11. Nummulite Limestone, very compact, slightly crystallized, almost wholly soluble in acid, the multiloculæ shells very minute, hardly the size of mustard seed.

12. Kunker, of the forms prevalent on the banks of the Nerbudda.

13. Rich brown Clay, like that eastward of Broach.

14. As none of my former statements seem to require correction beyond what is implied in those just made, I need not go over previous ground, but may now examine the localities where the rocks enumerated prevail, taking Dr. Carter's compilation as my guide.

15. *Granite* abounds in the valley of the Nerbudda, exactly of the kind I have examined.

"The Sichel hills, which have heretofore attracted little attention in a geological point of view, terminate to the west in the neighbourhood of Lonar, near what appears to have been a vast crater in the centre of the great basaltic district; it is the only instance of a volcanic outburst discovered in this immense plutonic region."

Immense beds of quartz abound, not only in the neighbouring hills, but in all the plains of Suloombur and towards Oodeypore. From the summit of the mountains round the Deybur lake or Beerpore, rises "an almost perpendicular wall of a large conglomerate or compound rock, consisting of immense reniform, or compressed globular masses of hornstone or quartz, imbedded in paste of the same, but having interposed a large quantity of golden mica in brilliant small plates; thin beds of mica slate occur near the centre of the mountain, with small seams of felspar, and large imbedded masses of Luccullite." (Dangerfield.) The brilliant whiteness of the quartz in the Southern Mahratta Country is also spoken of as being very striking, and Christie mentions ranges of hills there which are crested with limpid

quartz, from the granite in which it is imbedded decaying on either side.—*Captain Dangerfield, and Dr. Carter's compilation, p.* 633.

16. *Trap.*—"Below the Jaum Ghat, about a mile from the Nerbudda, between Mundleysir and Mhysir, is a cluster of basaltic columns rising from a small ridge. Their diameters vary from a foot to a foot and a half, and they project from four to six feet above the surface. Their general form is a prism of four or six sides, and the basalt of which they are composed is of a brilliant black, very hard, and of a moderate size grain. These columns are still either vertical or highly inclined, but appear to dip to no particular point. The rock from which they rise, and which constitutes the bed of the Nerbudda for a considerable distance, is a compact or fine-grained basalt, having sometimes imbedded felspar, but is more commonly much intersected by narrow vertical veins of quartz, or thin seams or wayboards of the same basalt, but containing, apparently, a larger proportion of iron. In this rock, or attached to large quartz fragments, are found very beautiful specimens of Zeolites, more especially the foliated and the radiated, or prismatoidal (stilbite). In most parts, however, of the northern portion of Nemaur, the rock seldom rises to the surface in the plains."*

"Between Balsar on the west, and Nagpore on the east, it contracts northward to a width of only eighty or ninety miles, where the Nerbudda crosses it between Chiculdah and Burdway (to mention the large towns close to the limits). After this it again expands out to form the tract of Malwa, which extends eastwards to Tendu Kaira, about seventy miles west of Jubbulpore, and westwards to Tandla. (Dangerfield.) From Nagpore south-westward to Beejapore, it is bounded, as in Malwa, by an irregular and more or less abrupt border; and its coast-limits are Balsar in the north and Malwa in the south."

17. *Tubular or Maccaroni Amygdaloid.*—"The Regur of Guzerat is generally imagined as being a stratified formation, seldom exceeding six or eight feet in depth, and thinning out at the lips all around. It shades insensibly into the lower soil, whatever that may be, and the mineral and stony particles are common to both, following exactly the same arrangement, whether in layers or beds,—clearly indicating that the one form of material was transformed from the other superimposed on it.

* I noticed in my former letter the abundance of Zeolites in the gravel: it is needless to go over the ground a second time. (See para. 3.)

"This state of matters is peculiarly conspicuous betwixt Surat and Kem-Chowkey, and all along the banks of the Taptee. In some cases both soils abound, and equally so with little nodules of siliceous spar incrusted in Chalcydony, such as are so abundant in our Amygdaloids, and in others with small fragments of nummulite rock; and that this last is so little plentiful, may be explained by the rapid solution of lime in all our soils, and its re-appearance in the form of Kunkur. Regur is remarkable for the abundance of this which it contains, and for the extraordinary rapidity with which it makes its appearance after having been in a great measure removed by the cultivator."*

18. *Sandstone.*—The following is from the paper of Captain Dangerfield, as republished by Dr. Carter:—

"The upper or northern part of Malwa is chiefly occupied by sandstone and sandstone slates, on which reposes, in most parts, the low boundary range extending across from Chittore to Harrowtee, which consists principally of hornstone, splintery or conchoidal, and in some places the beds of which are so thin as to assume a slaty appearance. Its colour is light-greenish or reddish-grey, with thin stripes of a darker purplish-red, and a radiated structure.

"The sandstones are generally very fine-grained, and vary in colour from a greenish and bluish-grey to a light hair or yellowish-brown and brick-red. The brown varieties have usually rather a larger grain, and contain sometimes a little mica. The grey kind forms a very valuable building stone, and is quarried for that purpose in many places east of the Chumbul."

19. *Nummulite.*—"The most southern position in which this formation, Eocene Nummulite, would appear to exist in India, is in the westernmost spurs of the Rajpipla hills, which form the left bank of the valley of the Nerbudda, about fifty miles from the sea."

20. It may be mentioned, that at the time I separated, set aside, and named the specimens, it had not occurred to me to turn up Dr. Carter's papers. Had I done so, I should have avoided the errors previously fallen into regarding the rocks on the Nerbudda and throughout India, arising from observing Oolite mentioned in the Museum Report as amongst the rocks in the Southern Mahratta Country, in the existence of which I disbelieved. Dr. Carter is stated in the Report to have been, with the Curator,

* Dr. Buist's Notes on a journey through Kattiawar and Guzerat. (Bombay Geographical Society's Transactions, 1856, page 96.)

unable to determine the locality to which the rubbish belonged. This must have arisen from the casual nature of the inspection; I have no doubt that one of the first of our geologists, if duly studying the matter, would have felt himself fully warranted in coming to the conclusion I have arrived at.

21. With the view of obtaining additional information, I applied to Mr. Ellis, Secretary to Government under the Revenue Department, to see and procure for me specimens of the clays and gravels from the banks of the river near and above Broach, and I have to acknowledge with gratitude the extreme promptitude and obligingness with which my wishes were complied with and carried into effect, through the courtesy of that gentleman, and by Mr. Thompson, Huzoor Deputy Magistrate, Broach. The specimens found had not quite the bearing on the subject I expected; but this need not be wondered at, when it is remembered that the stones discovered are deeply imbedded in a mass of transported alluvium, some 70 feet in thickness,—that in very few cases, in all likelihood, have they arrived at their present position by direct transport, but have been brought from the upper country at some remote era when our deltas were all under the sea. From these they are now being washed out by rivulets and streams, and the vast chain of operations being exempt from the complications with which the great glacial formations of Europe so constantly involve investigations as to transported matter, may be fairly assumed to have been brought, in distant times, from the higher lands to the eastward.

22. Having enumerated the various rocks and mineral specimens most conspicuous amongst the gravel, I think I am safe in adhering to the conclusion I formerly arrived at, that the valley of the Nerbudda is the only Cotton-exporting locality where such a combination as that under examination could have occurred.

23. I have no doubt, indeed, that had the investigation been pursued in the district, the precise locality might have been indicated, though collusion must have existed betwixt the swindlers and the employés of the Press Companies at Bombay, before the adulteration could have reached home.

24. I trust in conclusion that I shall not be suspected of a desire to dictate to the Chamber of Commerce, if I suggest that means be taken to make scoundrels indulging in these practices aware of how much science can do to effect their discovery. If guilty consciences ascribe more power to science than is possessed

by it, we may be thankful for an error through the existence of which fraud may be diminished.

25. I have to express my regret that a long continued attack of sickness, compelling an absence of several weeks' duration from the Presidency, should have prevented me from replying earlier to the communication of the Chamber of the 10th March.—I have the honor to be, &c.,

(Signed) GEORGE BUIST.

Bombay, 19*th July* 1859.

No. 85 OF 1859.

To DR. BUIST,
Bombay.

SIR,—I am directed by the Committee of the Chamber to acknowledge receipt of your interesting paper on the subject of stones, &c. in Cotton bales, and to tender you their best thanks for the same.

With regard to the concluding paragraph of your letter, the Chamber trusts that the natives will gradually see it to their own interest to be more straightforward in their proceedings, and hopes that the publicity that has been given to your remarks may not be without a good effect.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 9*th August* 1859.

APPENDIX E.

FLAX CULTIVATION.

No. 412 OF 1859.

GENERAL DEPARTMENT.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—I am directed by the Right Honorable the Governor in Council to forward to you, for such observations as the Chamber of Commerce may offer, the accompanying two demi-official letters from Mr. T. Ogilvy and Assistant Surgeon G. Birdwood, dated respectively the 4th and 9th February 1859.—I have the honor to be, &c.,

(Signed) H. YOUNG,
Chief Secretary.

Bombay Castle, 15th February 1859.

No. 23 OF 1859.

To H. YOUNG, Esq.,
Chief Secretary to Government, Bombay.

SIR,—I have the honor to acknowledge the receipt of your letter No. 412, dated 15th February, enclosing for such observations as the Chamber may have to offer two demi-official letters from Mr. T. Ogilvy and Assistant Surgeon G. Birdwood, dated respectively the 4th and 9th February 1859.

Mr. Ogilvy's letter refers specially to a subject which has more than once occupied the earnest attention of the Chamber of Commerce, and which has lately been revived by applications from Dundee, Belfast, Leeds, and other towns in Great Britain where the article is extensively used, and where the manufacturers are looking to India as the future source of large supplies of the article.

The attention of the Flax trade in Great Britain has been specially directed to India by the very successful result of the practical tests of a quantity of Punjaub Flax produced under the auspices of the Punjaub Government, and shipped from Kurrachee to England for the purpose, no doubt, of carrying out their experiment.

For the better information of the Right Hon'ble the Governor in Council on this subject, I beg to enclose the printed report of a meeting of the Dundee Chamber of Commerce, convened for the purpose of discussing the merits of the Flax in question, as also copy of a Memorial which has already been addressed to the Council for the Government of India on the subject.

In the month of August 1854, this Chamber addressed the Government on the subject of Flax, calling their attention to the article, and asking for information as to the reason of its being neglected by the agricultural population of this presidency. The question was one which the Committee knew would at once recommend itself to the attention of this Government, and the Chamber is much indebted to the Right Hon'ble the Governor in Council for the care and trouble which was taken at that time in collecting reports from the various districts of the Presidency on the subject of Flax. The substance of these reports, which contained much valuable and interesting information, appeared to the Chamber to explain to a certain extent the reasons why Flax was not produced in this presidency, and a copy of those will therefore afford the best reply that can be given to Mr. Ogilvy's letter.

It has yet to be ascertained that there is anything in the soil or climate of Western India inimical to the production of Flax, for Linseed is now extensively grown in all parts of the presidency; but there are grounds for supposing that as the production of the fibre can only be successfully accomplished by the aid of good and abundant irrigation, it must in this presidency be confined to the districts possessing that great advantage.

It is, I believe, generally admitted, that even in the most favored districts the plant does not produce both the seed and the fibre with advantage, and it therefore appears to the Chamber that the first difficulty is to be found in the entire want of that skilled labour indispensible to the production of Flax. The next, to those acquainted with the characteristics of the natives of Western India, will be found in the fact that while the production of the fibre requires much care and skill, and is attended with a degree of uncertainty which makes the return from it somewhat precarious,

the seed can be produced with comparatively little labour or care, and no skill, while at the same time it affords the quickest and most certain return to the cultivators at all times.

So long, therefore, as the production of the seed possesses such strong recommendations as the facts above stated will always be to the cold and unspeculative mind of the natives of Western India, it is much to be feared, all-important though so valuable an addition as Flax would be to the products of this presidency, that without some effort on the part of Government to initiate the matter or towards the encouragement of European enterprise directed specially to the production of the article, we shall not see much done towards the development of this branch of trade.

The Committee of the Chamber of Commerce, however, feels that with the interest which the Right Hon'ble the Governor in Council has always manifested in the development of the trade of this presidency, and the ready courtesy with which their communications and suggestions bearing on that subject have at all times been received, that it is unnecessary for them to say anything towards urging upon the attention of the Government the importance of encouraging the production of Flax, and submitting for their consideration how such encouragement can be most efficiently afforded.

Just at present, the Chamber is reluctant to suggest or recommend to the Government any expenditure of money to this end, but as they hope shortly to be in possession of full particulars of the result of the measures and experiments of the Punjaub Government towards initiating a permanent trade in Flax in that part of India, I may again do myself the honor of addressing you on the subject, with any suggestions that it may appear to the Chamber advisable to offer.—I have the honor to be, &c.,

(Signed) R. RYRIE,
Chairman.

Bombay, 17th March 1859.

TO THE PRESIDENT OF THE BOMBAY CHAMBER OF COMMERCE, BOMBAY.

SIR,—I beg to inform you that a "National Flax Supply Association" is forming here, principally with a view of endeavouring

to obtain an increased supply of Flax from India. My purport is to try to bring the action of this Association so much sooner into working order as it can be accomplished by the slow movements of routine, and my suggestion is, if you think proper, if you would put yourself in correspondence with Madras and Calcutta, and form there also Local Flax Supply Associations, with a view to have also an Indian National Association out of the local ones combined. Our Association considers it of the highest importance to receive your views of such an undertaking; do you think such an Association can promote the object it has in view, and if so, by what means? I suppose—1, by sending out English and Riga Seed, &c. 2, by sending practically-informed people to teach the natives the proper cultivation of the soil, the management of the plant, the retting, scutching of the fibre, &c.

Can you name any other means?

Can we here count upon your hearty and energetic co-operation and assistance?

Could you raise there also a working fund so as we do here?

Applications to Government for assistance in any way, be it by awarding premiums, granting land for the growth of flax, &c. &c. I suppose would be made from your quarter, and not from here; but if any application from you there can be assisted by being supported from here we shall be most happy to do it.

Please to give this subject your most serious consideration, and as soon as you conveniently can, please to favor me with your views on the same, and how it can be best brought to bear.

Awaiting your communications, I remain very respectfully, &c.,

(Signed) HENRY LUDOLF.

Leeds, 1st February 1859.

TO J. MAWSON, Esq.,
Secretary Bombay Chamber of Commerce.

DEAR SIR,—I am desired by the Chamber of Commerce to hand you herewith copy of a letter from Mr. H. Ludolf, of Leeds, and with reference thereto, especially to that part which suggests a combined action with the other presidencies in forming an "Indian Association" for promoting the growth of Flax, to request the views of your Chamber on this subject.

I may observe that for the purposes of Flax manufacture, the plant is not grown at all in this presidency; but this Chamber has no reason to doubt that skilled enterprise would soon bring it into production, and it is further of opinion that the course suggested by Mr. Ludolf, viz., sending out good seed, and properly qualified workmen to manage the cultivation and the manufacture, is the one which best promises success.

The Chamber does not place much reliance in Government premiums as a means of fostering the growth of Flax, but does not overlook the useful assistance which Government can render in the way of distributing seed, and promoting through its officers the sowing of it in each Collectorate. The true test of success will be the cost of production as compared with that in other countries, and to ascertain this with fidelity and certainty appears to the Chamber to be an object worthy of such an Association as that now proposed.

With this view it is prepared to lend its support to the scheme, and requesting to be favored with your sentiments thereon, I am, &c.,

(Signed) B. CARDOZO,
Secretary.

Chamber of Commerce, Madras, 24th March 1859.

No. 36 OF 1859.

To B. CARDOZO, Esq.,
Secretary Chamber of Commerce, Madras.

DEAR SIR,—By direction of the Committee of this Chamber, I have to acknowledge receipt of your letter of the 24th ult., with an accompanying copy of a letter to your Chamber from Mr. H. Ludolf, of Leeds, written on behalf of those interested in the formation of a "National Flax Supply Association." A similar letter has been received by this Chamber, and will be replied to in due course.

The production of Flax has long been an object of interest with this Chamber, and it is even now engaged in correspondence and enquiry on the subject. It has hopes that the application of skilled labour in localities suited to the cultivation, and possessing the, in this presidency, rare advantage of abundant irrigation, may

at no distant period yield an abundant supply. At present in this presidency, as in yours, the plant is not grown for the purposes of Flax manufacture, the ease with which the seed can be produced, and the profit which it yields, drawing the native mind altogether away from the more difficult process by which the more valuable product of the plant is prepared.

This Chamber does not believe that much advantage is likely to arise from the formation of Flax Supply Associations in this country, and the difficulties in the organisation and effective working of such Associations will readily suggest themselves. It agrees, however, with your Chamber in doubting the effect of Government premiums in promoting the cultivation of the plant for its fibre rather than for its seed.—I am, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay, Chamber of Commerce, 5th April 1859.

TO THE SECRETARY BOMBAY CHAMBER OF COMMERCE.

SIR,—I beg to send you a few statements of my views how to come to a uniform action to procure a supply of Flax from India, and I shall be glad to learn your Chamber's opinion about them. —Yours, &c.,

(Signed) HENRY LUDOLF,
A Member of the Leeds Flax Supply Association's Executive Committee.

Leeds, 4th March 1859.

THE SUPPLY OF FLAX FROM INDIA: WILL WE HAVE IT: OR, WILL WE HAVE IT NOT?

SIR,—There appears to be such an extraordinary lukewarmness amongst those parties that should be most desirous to bring this object about, that it does not alone surprise me, but many other persons, why this should be the case. It has been thought that this indifference can only be the result of misconception,—either that such parties believe that, whatever may be done, no result is to be expected; or that the funds required to bring it to bear are of such a magnitude that they cannot be raised; or that the

labour and trouble attending upon it are so great as not to be overcome. I take the liberty of addressing the following to you, to try to show that neither the one nor the other are to be feared; but that there is no doubt that, by united efforts, all difficulties may be overcome, and an important result may be expected far sooner than one of my friends expressed, viz:—"That my great-grandchildren only would reap the benefit of it."

My impression coincides perfectly with that of Lord Stanley's, —that the Government has tried long enough, and has spent money enough upon the attempt to hasten the production of Flax in India, with little success to continue it any longer, and that private enterprise must take it up to carry it to a successful result; but that Government will assist and encourage private enterprise in any way that lies properly in their province.

The reason that Government did not succeed in the object is, that they did not undertake to promote it by practically competent persons, who would and could instruct the labourers how to work it. The province of Government, in what it still can and no doubt will assist, is in making improved Laws as to the Tenure of Land,—the irregular, heavy, and exorbitant Taxation,—the establishment of Canals, Railroads, Bridges, Roads,—and also, as hitherto done, by a judicious mode of offering Premiums. The change of Government that has latterly taken place makes the reliance upon assistance in this manner much safer than it was under the former Directors.

Private enterprise, according to my views, should be directed first of all to the formation of an uniform plan of action to obtain the object in hand; and I should propose the establishment of Local Associations, similar to what has been done already here, in as many towns and localities as possible; then to elect and form out of these local Associations one General National Flax Supply Association, that represents all the Local Associations in England, Scotland, and Ireland. It is impossible that the Local Associations, separately, would act with such weight and effect as one combined National Association would do; and it is again impossible that a National Association, without the Local Associations, would act so well, as the several departments in detail would by no possibility be carried out so effectually as by local influence.

After this National Association has been constituted, it should begin its labours by addressing the Chamber of Commerce of

Bombay, Madras, and Calcutta, and by desiring these bodies to form also, in a similar manner as here, Local Flax Supply Associations, out of which *there* also an Indian National Flax Supply Association should be established.

For the beginning everything would depend upon this Indian National Association. If it is found that this subject is taken up *there* with that warmth and integrity that the magnitude of the object deserves, then all is well and will end well; *if we find here that we do not receive from India that support which we have a right to expect*, (for the subject is of equal, if not still greater, interest for India than for us,) *it would be useless to go on here*, and to waste time, labour, and money to no purpose. This is also the very reason why, for the present, no large funds are required. All will depend upon the information and advice we receive from India; and only then can be ascertained what will be actually required, and what will have to be done by us, to procure, as soon as possible, an extensive and valuable supply of Flax.

The Indian National Association will also have to point out the ameliorations that are desirable to be made in India in regard to the Tenure of land—the Taxation—the construction of Roads, Railroads, Canals—the Premiums to be awarded, &c.; and that Association and ours will have to go hand in hand in petitioning and representing to Government how to assist and enable us, that our efforts shall not be in vain. There is no doubt but our wishes would meet with all due consideration.

I am convinced that India will respond cordially to our proposals, and give us all and every support we can desire, not alone in advice, but also *in funds* to work the plan satisfactorily *in India*. The probability will be that the Indian recommendations will include the proposition to send out some English and Russian seed—some forty or fifty men or more, who are practically acquainted with the retting and scutching of flax, who can be sent into the different localities where the flax grows, each to a particular sphere of action, to serve as teachers. It is also to be expected that any capital laid out in the purchase of seed would be repaid afterwards, as the seed would be sold in India, and the English National Association would probably only have to pay the expenses of the voyage of the men to India; on their arrival there the Indian Association would take charge of them, and they would be paid by the large zemindars, or agriculturists, there for their labour and teaching.

I do not see it of any use to get instructions printed, to be distributed in India to the agriculturalists; the sowing and reaping process is known there well enough, and for the present, no other method for the preparation of Flax than dew and pond retting, and hand scutching should be adopted, and this cannot be taught by print, but only by ocular and manual example by well informed people. The Machines that are required for that purpose are so simple of construction that they can be made anywhere, and the process so easy that it is soon taught and learned.

A guarantee should be given to the producers that the National Indian Association will buy of them, at full market-value, every ton of flax that they will deliver to the same, and we again should undertake to buy, or receive, every ton of flax thus bought in India. The better sorts of Tow would also be quite available.

As regards baling and transit of the Flax, there can be no difficulty about it, as the manner in which we receive Cotton, Wool, Jute, &c., shows quite sufficiently that the Indians can pack and bale Flax also.

I really do not think that we should have to wait such an extraordinary long time before we should see the result of our endeavours; if we take into consideration the very large quantities of Linseed that is annually exported from India, (America obtains about twice as much as England,) it must show clearly that an enormous quantity of Flax Straw must now be wasted, for even short Straw would come in useful for Tow purposes. No wonder that it is so, for without being prepared on the spot into Flax or Tow it would be too bulky for any conveyance.

If I consider that, to obtain one and a half quarters of seed, it will have required an acre of ground to grow it, that acre will have produced, as it is admitted to be generally in India, only a short growth, I will only take it at about one and a half ton of Straw on an average, of this about eight tons of Straw would deliver one ton of Flax, irrespective of Tows and Codilla, consequently about three and a half hundred weight of Flax to the acre; it ought not to be difficult to obtain 30 to 50,000 tons of Flax from India, within eight or ten years, or sooner. The agriculturalist would soon observe, that from the same acre of land, of which he reaps his one and a half quarter of seed, or about three pounds value, he can, by the conversion of the Straw into Flax, at the same time also obtain three and a half hundred weight of Flax, or seven pounds average value, and upon finding

this not to be an illusion, but a stern reality, will he not be soon persuaded to learn, and pay for the teaching too, how to obtain more than double the benefit of his land than what he has hitherto done?—will he not be quite ready to increase the quantity of a produce that pays him so well? and is it therefore unreasonable to expect a rapid extension of the growth of Linseed, after he has got once the conviction of the profit he can make by it? According to the immense quantity of seed that India exports, the quantity of 50,000 tons of Flax is a small part of the fibre that is annually grown; however, this quantity would already be about two million pounds of wealth for India, obtained from a branch of trade hitherto uncultivated there; I have all expectation that from the two millions, it would reach up to six or ten millions in less time than it had required to obtain the first two millions produced. The value of the export of Seed would reach in 1857 in all nearly up to seven millions of pounds.

If this branch of trade is considered in this light, can it be expected that the Government would not be very ready, and even eager, to assist in bringing forth so desirable a result?

Is it not also, I might say, the duty of almost every individual to render his assistance and aid one way or the other, to cause the private enterprise to succeed in its undertaking, the sooner the better?

But it is said, that this is a branch of business that has only an exclusive interest—interest only for such parties as are engaged in the Flax trade, or in Flax Spinning, Bleaching, Weaving, or in the sale of Linens. Now, I beg to say that I consider this to be a very narrow view of the question.

Is not the machine maker, that furnishes all the machines to the mills—the engine maker, that creates the power—the locomotive maker, that causes the transit over the rails—equally to the same extent interested in it? I even go still further, and I maintain that if the Indian wealth is increased by two, four, or six millions of pounds, the capability to buy and consume is by so much increased. Returns are required for this importation of Flax, and these will consist in a great part in Manufactures, as Woollens, Cottons, &c., and thus the woollen and cotton manufacturer is interested in it. If we receive 50 to 100,000 tons of Flax from India, the returns in manufactured goods will be about one fourth in weight, and by so much more the shipping trade, and, therefore, the shipowners, must be interested in this business.

The object under consideration is, therefore, not of isolated Local, but of truly General National interest; and it will much easier be worked and brought to bear, than either an extended and improved supply of cotton, or of wool; for the Straw is there annually grown, and the process of conversion into Flax exceedingly easy and simple, where Cotton and Wool Supply Associations have to contend with infinitely more difficulties, much heavier expenses, and for these a desired result must necessarily be at a much further distance.

I write this principally with a view to point out one uniform plan of action, and I shall be very glad to learn the opinion of other parties, as only by discussion a true and safe path can be traced.

With sincere regards, I remain, &c.,

HENRY LUDOLF.

Leeds, March 1859.

APPENDIX F.

LINSEED OIL.

No. 933 of 1858.

From the Inspector General of Prisons,

To the Secretary of the Chamber of Commerce, Bombay.

Sir,—I am informed by the Session Judge of Khandeish, that ninety-four gallons of Linseed Oil have been prepared, I trust equal to the sample forwarded for the inspection of the Chamber.

2. I should consider it a favor if you can inform me what is the best market for the oil;—I mean who, at the presidency, are likely to give the best price for it, and how (in what vessels) it ought to be packed for transmission to the presidency. Unadulterated Linseed Oil is not, I understand, to be procured in any bazaar in this country, being always more or less mixed with other inferior oils.

3. It is a great point to put this pure Linseed Oil before the public, in the manner which may best secure its due appreciation, both with reference to its extended use and export, and also to establish its value as a product of prison labour.—I have the honor to be, &c.,

(Signed) A. H. Bettington,
Inspector General of Prisons.

Poona, 6th September 1858.

No. 1010 of 1858.

From the Inspector General of Prisons,

To the Secretary of the Chamber of Commerce, Bombay.

Sir,—Referring to my letter No. 933, of the 6th instant, I have the honor to inform you the Session Judge of Khandeish

reports that the Linseed Oil referred to is of the same quality as that of which a specimen was sent to you, and reported on in very high terms by certain of the Railway artificers.—I have the honor to be, &c.,

(Signed) A. H. BETTINGTON,
Inspector General of Prisons.

Poona, 20th September 1858.

No. 959 OF 1858.

TO THE SECRETARY OF THE CHAMBER OF COMMERCE, BOMBAY.

SIR,—Under instructions from the Inspector General of Prisons, I have the honor to forward a specimen of Linseed Oil manufactured in the Jail at Rutnagherry, and request you will favor me with your opinion on the same.—I have the honor to be, &c.,

(Signed) T. LYND,
Acting Senior Assistant Session Judge.

Rutnagherry Adawlut, 6th September 1858.

No. 600 OF 1859.

To J. A. CROWE, Esq.,
Secretary Chamber of Commerce, Bombay.

SIR,—I have the honor to acknowledge receipt of your letter of the 15th January 1859, together with bills of cost and charges on 4 packages containing 71 and not 80 bottles of Linseed Oil forwarded by your Committee—8 bottles were found empty from bad packing.

2. In reply I have to inform you that on the 22nd October last the Acting Session Judge of Khandeish forwarded to me correspondence which had passed between the Committee of the Chamber of Commerce, the Inspector General of Prisons, and himself, on the subject, and requested me to inform him how many gallons of the oil I would wish to have.

3. On the 17th December 1858, I addressed a letter to the Session Judge in reply to his communication, and informed him

that 150 gallons would be all that we would require for the present.

4. In compliance with which the Session Judge of Khandeish delivered to me here 140 gallons (one cart-load) of the oil at the rate of Rs. 2 per gallon.

5. The Chamber having thus handed the matter over, I did not expect they would have taken any other steps in the matter.

6. The supply therefore of a sample of 80 bottles, equalling about 13¾ gallons, and costing, including expenses, nearly Rs. 5 per gallon, you will observe is more in quantity and cost than I had bargained for.

7. I enclose you an order on the Sub-Treasurer, Bombay, for Rs. 54-8-0, the price of the 71 bottles, including charges at Bombay, the receipt of which I shall thank you to acknowledge. —I am, Sir, yours, &c.,

(Signed) J. McGLINCHY,
For Managing Agent.

Bombay, Baroda, and Central India Railway Company's Office, Surat, 1st March 1859.

APPENDIX G.

CLOVE OIL.

To J. FLEMING, Esq.,
Chairman of the Chamber of Commerce, Bombay.

SIR,—With reference to your letter of the 23rd ultimo, I beg to state that in consequence of the "Soorya" grass not having become sufficiently matured for cutting, I have been unable to act upon the very kind proposal you have been pleased to make.

Instead, therefore, of continuing operations with the "Grass Oil," I have been attempting the extraction of other essential oils, including "Clove Oil." Of this latter, I beg to submit a sample for the opinion of the Chamber of Commerce.

The Oil of Cloves, of commerce, is said to be extracted from the dried flower buds of the caryophyllus aromaticus—specific gravity 1.061. It is not pure, but adulterated with other oils. The uses of the oil are various. It enters into several of the compounds of the pharmacopœia, wherein its medicinal properties are described as tonic and slightly stimulant. It is useful in cookery, and also in the arts. It is, too, mixed with collodion in photographic manipulations. The sample now submitted will probably be found pure enough for every purpose for which this oil may be required. Its value might probably be tested in the Bombay market. However this may be, should the Chamber require a larger quantity, I will, with much pleasure, forward it forthwith. —I beg to remain, &c.,

(Signed) E. McCOY.

Sholapore, 25th September 1858.

APPENDIX H.

SHEEP'S WOOL.

TO THE MEMBERS OF THE CHAMBER OF COMMERCE.

GENTLEMEN,—You are requested to record your opinions on the quality and value of the accompanying sample of Wool from the Punjaub.—By direction of the Committee,

(Signed) JOHN MAWSON,
Secretary.

Chamber of Commerce, Bombay, 9th April 1859.

No. 1255.

PUNJAUB AGENCY, UMRITSUR AND HUREEKE.

TO THE SECRETARY BOMBAY CHAMBER OF COMMERCE.

DEAR SIR,—We have the pleasure to send you herewith a sample of Sheep's Wool, of which a parcel has recently come into our hands. We should be obliged by your showing it to the Members of the Chamber, and obtaining an opinion as to its probable price in the London or Bombay market.

Our Mr. H. Cope requests you will present to the Chamber in his name accompanying copy of a paper recently published in Calcutta, and which is now being reprinted by the Punjaub Government.

We have the pleasure to subscribe ourselves, your very faithful servants,

(Signed) HENRY COPE & Co.

Umritsur, 28th March 1859.

No. 41 OF 1859.

To Messrs. H. COPE & Co.,
Punjaub Agency, Umritsur.

GENTLEMEN,—By direction of the Committee of the Chamber, I have to acknowledge receipt of your letters of the 21st and 28th ultimo, the latter enclosing a sample of Wool for the opinion of the Chamber.

With reference to your letter of the 21st ultimo, the Committee have to reply that the Chamber issues no printed publications of its own, or it would gladly send you any that might be of interest to you, or afford you information. Any special information you may require it will readily afford by letter on your making known your wishes. Any information you may be able to supply in return, especially with reference to the products of the Punjaub and adjacent territories, and more particularly as to Flax, they will always be happy to receive.

The sample of Wool enclosed in your letter of the 28th ultimo has been circulated for the opinion and valuation of the Members of the Chamber. The result, as you will be glad to learn, is highly satisfactory; the unanimous opinion being that the Wool is of very superior quality, and estimates of its price in the English market varying from 13d. to 16d. a pound.—I remain, gentlemen, yours, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 19th April 1859.

No. 1859 OF 1859.

REVENUE DEPARTMENT.

To J. MAWSON, Esq.,
Secretary to the Chamber of Commerce.

SIR,—I am directed to transmit the accompanying copy of a letter from the Secretary to the Government of the Punjaub, and to state that the Commissioner of Customs, Salt, and Opium has been directed to communicate with

No. 1015, dated 29th April 1859.

the Chamber on receipt of the bales of Merino Wool therein referred to.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 16th May 1859.

No. 1015 OF 1859.

GENERAL DEPARTMENT.

From R. H. DAVIES, Esq.,
Secretary to Government, Punjaub and its Dependencies,

To SECRETARY TO THE GOVERNMENT, BOMBAY.

SIR,—About four years ago, the late Lieutenant Colonel Holmes, of the 12th Irregular Cavalry, introduced into Huzara a flock of sheep of the Merino breed, which he had procured from the Cape, with the double object of improving the country breed by crossing with the Merino, and of naturalising the Merino in this country.

2. On the murder of that officer by his mutinous regiment (in Bengal) in 1857, Sir John Lawrence ordered the purchase of the flock on the part of Government, and directed that the Wool should be collected for a year or two and sent to Bombay, in view to ascertaining the value of the commodity in the markets of that place.

3. I am now directed to advise you that a bale of this Wool has been forwarded to the Collector of Customs, Kurrachee, for transmission to you, and I am to convey the request of the Hon'ble the Lieutenant Governor, that you will be so good, with the permission of the Right Hon'ble the Governor in Council, as to issue such instructions regarding its sale as may further the object in view, viz., to ascertain the market value of this Merino Wool in Bombay.

4. The Wool is in the most crude state, having neither been cleaned nor carded.—I have the honor to be, &c.,

(Signed) R. H. DAVIES,
Secretary to Government, Punjaub.

Dated Lahore, 29th April 1859.

APPENDIX I.

GRAVING DOCKS.

MARINE DEPARTMENT, No. 1214.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—I am directed to state, for the information of the Chamber of Commerce, that the Right Hon'ble the Governor in Council has received an application from the Superintendent of the Peninsular and Oriental Company's steamers for the lease of the premises of the Mazagon Dockyard, with a view to the construction of a Dry Dock for the reception of their largest steamers, and also for the creation of an establishment there, with Factories, Warehouses, &c., for the use of the Company.

This proposal deserves the serious consideration of Government, but before entertaining it, the Governor in Council desires to be informed if the mercantile community are prepared to offer any proposition for the Dockyard to be appropriated in any manner which will promise more general advantage to the public than can be obtained by leasing it to the Peninsular and Oriental Company.—I have the honor to be, &c.,

(Signed) P. M. MELVILL, Colonel,
Secretary to Government.

Bombay Castle, 29th September 1858.

No. 137 OF 1858.

TO COLONEL P. M. MELVILL,
Secretary to Government, Marine Department, Bombay.

SIR,—I have the honor to acknowledge the receipt of your letter, No. 1214, dated 29th September, addressed to the Chairman of the Chamber of Commerce, on the subject of leasing the Government Dock at Mazagon to the Peninsular and Oriental Steam

Navigation Company, and to state that I am desired by the Committee of the Chamber to tender their apologies for the delay that has arisen in replying to the letter.

The question of Dry Docks for merchant shipping is one of the utmost importance to the trade of Bombay, and the want of such accommodation has been so seriously felt and so frequently pressed upon the notice of the Chamber of late, that the Committee were the more anxious in the first place to ascertain fully the intentions of the Peninsular and Oriental Company in the event of the application being granted, and then to obtain the views of the merchants generally on the subject of your letter, before giving in a reply to it.

The Committee are glad to have to inform you that these views, as expressed by nearly every member of the Chamber, are decidedly in favor of the Mazagon Dock being leased to the Peninsular and Oriental Company; but it is respectfully suggested, for the protection of merchant shipping generally, that in the granting of such lease the Peninsular and Oriental Company should be bound to have the plans completed, and so be ready to vacate their present premises, within a specified time, say two, or at most three years.

At the expiry of that time the dock and premises which they now occupy would be open to the public generally, and afford an opportunity to individual enterprise, or to any Joint Stock Company, of providing for the requirements of the port in this respect; and the Committee desire me to state that, in their opinion, the leasing of the Mazagon Dock to the Peninsular and Oriental Company (who have the *means*, and the desire also of completing as speedily as possible the plans proposed) would appear to promise the earliest relief to the merchant shipping frequenting this port, inasmuch as that, even if a new and independent Dry Dock Company was organised at once, so much valuable time would be lost in discussion and other preliminaries, that they would scarcely be ready to commence the work of enlargement and improvement of the Dock when the Peninsular and Oriental Company, in the event of the lease being granted, might have all the work completed.

The Committee of the Chamber desire me to avail of this opportunity to bring to the notice of Government that the late measure of the Commander-in-Chief of the Indian Navy, virtually closing the Government Dockyard against merchant ships in dis-

tress, has been the cause of heavy losses and much inconvenience to the owners of ships frequenting our harbour; and further, that the want of accommodation and facilities for the repairing of ships in distress, which up to within the past eight or ten months had always been afforded by the Government Dry Docks, when the exigencies of the service were not interfered with, is daily becoming the subject of serious concern to the shipping interests of the port. The privilege which merchant ships have always enjoyed of being admitted to the Government Dock on payment of a fixed scale of charges, (and it is a privilege which the policy of the Government in hitherto refusing to grant either to individuals or to Joint Stock Companies any sites or accommodation on the island of Bombay for the establishment of public or independent Dry Docks for the repairing of ships rendered absolutely necessary), has tended very much to the advancement of Bombay as a shipping port, and it will be obvious to the Government that its sudden withdrawal, particularly at a time when the great increase in the trade of the port renders it even more important than it had ever been before, must be most seriously felt, and it is already creating a prejudice against the port.

During the past twelve months a large number of ships have arrived in distress, and several have put back from sea also leaky and in distress, and but for the liberality of the Peninsular and Oriental Company, or rather the gentleman who is at the head of their affairs here, in making available to the public all the accommodation that they could afford for the repair of these ships, the losses and inconvenience to ship-owners as well as to merchants and underwriters would have been much heavier even than they are. To show, however, how inadequate all that the Peninsular and Oriental Company *can* do is to the wants of the port, the Committee would point to ships now in harbour that have been waiting here since April and May last for the chance of getting into Dock; and in the case of one ship, where despair of *ever* getting into Dock at all appears to have taken possession of the Captain, the alternative of beaching or "putting on the Hard" was attempted, the result has been the total loss of the ship—the *Mirzapore.*

During a great portion of this time one of the Government Dry Docks has, as the Committee are informed, been occupied by the hulk of a condemned steamer, while the others have been empty and occupied at intervals as usual.

The scale of charges fixed many years ago, on payment of which merchant ships were always admitted to the Government Dock, were, so far as the Committee are aware, found to be amply remunerative, and must have proved a fair source of revenue to the Dockyard; but even if they are found not to be so now, the want of the accommodation has been so severely felt that any fair revision of the charges that Government may see fit to make, would, the Committee of the Chamber think, be most cheerfully submitted to.

In conclusion, I have only further, by desire of the Committee, most respectfully to urge upon the attention of the Government the pressing nature of this immediate want of Dry Dock accommodation for the repairing of merchant ships in distress, and how severely it has been felt by merchant shipping since the privilege of admission to the Government Dock has been virtually withdrawn, and to point out that the prejudice which it is now creating in the minds of ship-owners against Bombay as a port, may eventually militate against trade generally, the natural result of such prejudices being demands for higher freights, &c.—I have the honor to be, &c.,

(Signed) J. A. CROWE,
Acting Secretary.

Bombay Chamber of Commerce, 26th November 1858.

MARINE DEPARTMENT, No. 231.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—I am directed to acknowledge your letter dated the 13th of November last, No. 318, and to transmit to you, for the information of the Chamber of Commerce, the accompanying copy of a letter from the Commander-in-Chief of the Indian Navy, dated the 29th ultimo, in which the Right Hon'ble the Governor in Council considers is shown conclusively the necessity of appropriating the Government Dockyard to public purposes only, and excluding therefrom all private work, with the exception of occasional cases of great emergency.

2. It is much to be regretted, however, that no proper Dry Docks should be available for merchant ships, and it is to be hoped that the measure adopted of leasing out the Mazagon Dock

to the Peninsular and Oriental Company may be the means of opening out some Dock accommodation for the mercantile shipping of the port, though still vastly disproportioned, no doubt, to the extent of the requirement.—I have the honor to be, &c.,

(Signed) P. M. MELVILL, Colonel,
Secretary to Government.

Bombay Castle, 12th February 1859.

No. 100 OF 1859.

MARINE DEPARTMENT.

TO THE RIGHT HON'BLE LORD ELPHINSTONE, G.C.H.,
Governor and President.

MY LORD,—I have the honor to acknowledge the receipt of Secretary Colonel Melvill's letter, No. 1633, dated 11th ultimo, with its enclosed copy of a letter from the Chamber of Commerce, and in compliance with the instructions conveyed in the latter part of the 1st para. I have no hesitation in expressing to your Lordship in Council that in my opinion it is on all accounts most desirable that the Bombay Government Dockyard should be appropriated exclusively to public purposes.

2. I think, at the same time, that there is a most urgent necessity for providing increased docking accommodation for the merchant shipping, and I have therefore always advocated that the Mazagon Dockyard should be dispensed with by Government, and leased to individuals who would make it available for that purpose.

3. The great inconvenience, in addition to other serious evils, which attends the mixture of Government and private work in our establishment, is too well known to every one. But, setting aside even those objections, we are positively unable now to spare any workmen for the repairs of merchant vessels. It is a question between providing for the Government service and the merchant vessels, and if the latter are to claim our first attention the Government work must be left undone.

4. It may afford some weight into this question if I simply state to your Lordship in Council what works we have at present before us in the Bombay Dockyard for the public service. We have on the stocks a large frigate, and not a man has been available to go on with her during the past year. There are six gun-boats

ordered to be built in 1857, of these two only have been commenced, one of them is approaching completion, and the other will require some months longer before she is ready for launching. The *Euphrates* and *Mahi* are both in Dock, requiring extensive and thorough repairs. The *Ajdaha* is awaiting decision about her conversion into a Receiving Ship. Besides these, the *Ferooz* wants new decks, and, had I the means of doing so, they ought to be taken in hand at once, and this is in addition to the repairs of the ordinary defects of the squadron and the Indus Flotilla.

5. The fact is, moreover, that while year by year the vessels of the Indian Navy have increased in size, as well as numbers, and the demands from the Indus Flotilla have been increasing in similar proportion, there has been so great a demand for workmen from the Railways and other public works, that great numbers of the Dockyard workmen have forsaken Government employ for the higher wages which they can obtain outside the Dockyard.

6. While this demand on the diminished resources of the Dockyard has been increasing, there has been within the last two or three years a more than commensurate increase in the merchant shipping, and as an inevitable consequence a much larger proportion of damaged and leaky vessels requiring repairs. In the year 1855, there arrived in the port of Bombay 486 vessels, representing an aggregate tonnage of 203,710 tons; in the year ending 30th April 1857 the arrivals were 725, with a tonnage of 457,803 tons; and in the year ending 30th April 1858 these numbers were 928 vessels arrived, aggregating 547,978 tons.

7. In a letter I addressed to Government on the 31st October 1857, No. 1274, I stated that had I complied with all the applications sent in for the use of Docks, the whole time and labour of the establishment could not suffice; and in reply to a communication made to me by the Chamber of Commerce on the subject, I told them that although the Docks might be vacant, it did not follow that workmen could be spared, and that I felt obliged to restrict our assistance to cases of serious leaks or other urgent necessity.

8. The real truth is, moreover, that the Dockyard was treated as a common store and workshop for everybody; and, whenever any article could be procured there at a lower rate than in the bazar, application was made to be supplied from it, and indents were continually sent in both for articles in store and for work to be done, the arrangements for the payment for which added largely

to the labours of the Accountants, and of the Paymaster's and Audit Departments.

9. No encouragement was formerly given to the proprietors of the Docks now rented by the Peninsular and Oriental Company; the charge made by Government was and is lower than any private parties can do the work for, and to the Government Dockyard the vessels came, to the entire destruction of any commercial enterprise in this respect, and the same result would follow again. The Agent of the Peninsular and Oriental Company, who has admitted vessels into their Docks, does not undertake their repairs; and he has told me repeatedly that no private speculation in Docks will answer unless the Government Docks are closed to merchant shipping.

10. I consider, therefore, that the 5th para. of the letter of the Chamber of Commerce does not present a proper and fair state of the case, nor does the 6th in regard to the loss of the ship *Mirzapore*. Vessels are laid upon the beach in this port constantly, as they are in every harbour in the world where there is a good rise and fall of tide. The *Mirzapore* was laid on the Hard at Mazagon, and her repairs had been actually effected, and it was entirely owing, I regret to have to say, to the want of proper care in hauling her off (and probably to the absence of the master of the vessel at the time, who was on shore instead of attending to his ship), that she swung round upon a rock and was bilged. But to attribute this most culpable accident to the ship not having been taken into the Government Dock, is indeed to connect two circumstances which have no relation of cause and effect at all.

11. It is stated in the 7th para. that during a great portion of this time one of the Government Dry Docks has, as the Committee are informed, been occupied by the hulk of a condemned steamer, while the others have been empty and occupied at intervals as usual. This is not the real state of the case. The *Ajdaha* was taken into Dock on the 27th August last, for the purpose of being surveyed, and I have been anxiously awaiting a reply to my report upon her, and to my proposal to convert her into a Receiving Ship in place of the *Acbar*. The other Docks have never been unoccupied for a day.

12. With regard to para. 8 I will only observe that the question is not as to fair remuneration for the use of the Government Docks, but as to the possibility of continuing the system without serious inconvenience to the Government service.

13. In cases of real necessity, I have, even to the delay of important Government work, given the use of the Docks whenever it has been possible; but is quite out of my power, with the means we possess, to comply with one quarter of the demands arising from the enormous increase of shipping in this port.—I have the honor to be, &c.,

(Signed) G. G. WELLESLEY,
Commander-in-Chief of the Indian Navy.

Office of the Commander-in-Chief, I. N.,
Bombay, 29th January 1859.

APPENDIX J.

WET DOCKS.

No. 1527 of 1859.

PUBLIC WORKS DEPARTMENT.

From Colonel WALTER SCOTT,
Chief Engineer at the Presidency,

TO THE CHAMBER OF COMMERCE,
THE COMMISSIONER OF CUSTOMS,
E. HEYCOCK, Esq.

GENTLEMEN,—I have the honor, in accordance with instructions from Government, who have under consideration a scheme for reclaiming from the sea the ground between the Castle and Mazagon Bunder, to inquire whether, in your opinion, there is a sufficient demand for the provision of export and import docks, capable of accommodating merchant vessels of the largest size, to call for the construction of such works on a portion of the ground to be reclaimed, and whether, in your opinion, they would be generally resorted to by ships visiting the harbour.

2. I have the honor to append an extract from a Despatch from the late Court of Directors on the subject of the proposed reclamation.

3. I shall be happy to meet you, and such parties as the Chamber of Commerce may depute, in order to avoid delay and needless correspondence.—I have the honor to be, &c.,

(Signed) WALTER SCOTT, Colonel,
Chief Engineer at the Presidency.

Bombay, 14*th March* 1859.

Extract paragraph 3 *of a Despatch from the late Court of Directors, No.* 34, *dated* 1*st September* 1858.

Para. 3. The doubt which it most readily suggests, regards the stability of the retaining sea wall, and it would next be essential to ascertain whether commercial docks, like those for which sites are assigned within the enclosure, are really of prime necessity at Bombay, and would be generally resorted to; whether there is sufficient depth of water to make them accessible to large vessels; and whether the future formation of shoals or sand-banks need be apprehended from a possible change of current, consequent on the projection of a new barrier beyond the present coast-line. If satisfactory answers can be returned to inquiries on all these points, a strong presumption will be afforded in favor of a project, promising by comprehensive and systematic arrangements to supply at once almost all those commercial appliances, the want of which at Bombay has long been a growing subject of complaint.

No. 38 OF 1859.

To Colonel WALTER SCOTT,
Chief Engineer at the Presidency.

SIR,—I have, by direction of the Committee of the Chamber, to acknowledge the receipt of your letter of the 14th ultimo, proposing a conference on the subject of Docks for Bombay. In reply, I am instructed to state that Messrs. James Graham, M. S. Campbell, and John Fleming, will be nominated on behalf of the Chamber, to confer with you at any time you may be pleased to appoint.—I am, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 12*th April* 1859.

No. 3068 OF 1859.

PUBLIC WORKS DEPARTMENT.

From Colonel WALTER SCOTT,
Chief Engineer at the Presidency,

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—Will you have the goodness to bring to the notice of the Chamber of Commerce that Mr. James Graham proceeds to England by the mail of the 26th, and that we have not yet had an opportunity of meeting. It is desirable, therefore, that the Chamber should nominate a gentleman in place of Mr. James Graham.—I have the honor to be, &c.,

(Signed) WALTER SCOTT, Colonel,
Chief Engineer at the Presidency.

Bombay, 20th April 1859.

No. 47 OF 1859.

To Colonel WALTER SCOTT,
Chief Engineer at the Presidency, Bombay.

SIR,—In reply to your letter of the 20th instant, desiring that the Committee would nominate another gentleman to the proposed conference on the subject of docks, in the place of Mr. James Graham, proceeding to Europe, I am directed to inform you that Mr. John Ritchie, of the Peninsular and Oriental Company, will act in the room of Mr. Graham.—I have the honor to be, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 29th April 1859.

APPENDIX K.

THE NEW TARIFF.

No. 29 of 1859.

To the Chairman of the Chamber of Commerce,
Manchester.

Sir,—The mercantile community of this country has, since the last mail left, been thrown into a state of considerable excitement, by a sudden alteration of the Customs Tariff, involving a very large increase in the duties on imports. Here in Bombay, on the morning of Monday the 14th instant, importers were surprised by the demand for greatly enhanced duties on goods passing through the Custom House; and were informed that this demand was under instructions received by the local Government by telegraph from Calcutta. So precipitately was the measure enforced, that it was actually in operation here before the Act giving it validity had passed through the Legislative Council.

Public feeling on the subject ran very high here, especially in regard to the suddenness of the measure; and to give it voice, a meeting of the mercantile community was summoned for the next day. At this meeting, which was very fully attended by both Europeans and Natives, it was resolved to address the local Government, asking it to suspend the fulfilment of its instructions for such a period as would give time to admit of goods actually here, either on board of ships in the harbour or in the Custom House, or on their way to the port, from the unexpected, unjust, and injurious effect of the operation of the new duties; or if the Government had not power to do this, then to suspend the measure pending the result of a reference to Calcutta. The deputation which presented this memorial was informed that the

local Government had no power to suspend the Act, but that it had anticipated the prayer of the memorialists, and already telegraphed to the Government of India on the subject.

The reply from Calcutta was that no suspension could be allowed. On receipt of this, the mercantile community again assembled, and determined to memorialise Lord Stanley on the whole subject,—the impolicy of the measure as well as the evil of its sudden enforcement. The memorial will go to Lord Stanley by the present mail, forwarded direct by Lord Elphinstone.

It may be remarked, that immediate action being felt to be necessary, the meetings here were held before the Act in all its clauses was promulgated in this Presidency.

In accordance with one of the resolutions of the last meeting, it has become the duty of the Committee of the Chamber of Commerce to place itself in communication with your Association, and others of similar character, with a view to obtain their active support in forwarding the object of the memorial to the Secretary of State for India. This Committee feels assured that any urgent appeal is unnecessary, and that the facts themselves, when they become known at home, will suffice to insure an earnest, active, and influential agitation against measures as prejudicial to the trade of England as to that of India. It will therefore content itself with sending to your Association a copy of the memorial to Lord Stanley, that to Lord Elphinstone, the resolutions of the meetings, and other papers, and asking its co-operation in procuring the repeal of an Act so objectionable in all its clauses, and so directly opposed to all the recognised principles of legislation, as that referred to.—I am, &c.,

(Signed) ROBERT RYRIE,
Chairman.

Bombay Chamber of Commerce, 26th March 1859.

No. 26 of 1859.

MEMORIAL TO LORD ELPHINSTONE.

To the Right Honorable the Governor of Bombay in Council.

The respectful Memorial of the undersigned, Chairman of the Chamber of Commerce, on behalf of the Mercantile Community of Bombay in general meeting assembled,

Respectfully Sheweth,—That at a meeting of the mercantile community of Bombay, held in the Town Hall on Tuesday the 15th instant, your memorialist was requested to express to your Lordship in Council the deep feeling of concern with which the sudden and immediate levy of greatly enhanced duties on imports and exports, especially the former, under telegraphic instructions from Calcutta, is regarded by the commercial public. The right of the Government of India to increase such duties is not denied; but it is maintained that those whose interests are affected by such increase have, in common justice, a right to such previous notice of the measure contemplated, as may enable them to avoid the serious hardship and loss which the sudden demand for double, triple, or quadruple duties on goods bought, shipped, sold, and even landed, on the faith of a long-established tariff, must occasion.

Your memorialist need not enter on a detailed description of the various ways in which the immediate enforcement of the instructions received from the Government of India will unjustly, as your memorialist and those whom he represents believe, entail hardship and loss on members of the mercantile community, and which he and they feel assured must be as obvious to your Lordship in Council as to them. It will suffice to allude to the case of the many who, having sold consignments of goods now actually in the harbour or on their way to this port, taking the then existing tariff as an element in their calculations, find themselves deprived of their fair profits, and probably subjected to a heavy loss.

Under these circumstances, your memorialist, on behalf of

the mercantile community of Bombay, respectfully prays that your Lordship in Council will suspend the enforcement of the enhanced tariff within this Presidency for such length of time as may enable shippers and merchants to avoid its otherwise unjust and injurious operation; or should this not be within your Lordship's competence, then pending the result of a reference to the Government of India at Calcutta.

And your memorialist shall ever pray, &c.

(Signed) R. RYRIE.

Bombay Chamber of Commerce, 15th March 1859.

THE GOVERNOR'S REPLY.

GENTLEMEN,—Although I am at all times most anxious to attend to the representations of the mercantile community in matters affecting their interests, I regret that upon the present occasion it is not within the competence of this Government to accede to either of the requests contained in the memorial which has been addressed to me by the Chairman of the Chamber of Commerce.

The immediate levy of the new duties has been expressly ordered by the Government of India; and even if their orders had left me any discretion upon this point, it is obvious that the suspension of the new tariff in one Presidency, while it is enforced in the others, would furnish more reasonable grounds of complaint than its sudden application to the whole of India.

It is therefore impossible to suspend the levy of the new rates pending a reference to Calcutta; but I have so far anticipated the wishes of the mercantile community as to address the Government of India by telegraph, recommending that goods shipped previous to the receipt of the Notification at the place of shipment shall be subject to the old rates of duty.

No. 35 of 1859.

MEMORIAL TO LORD STANLEY.

To the Right Honorable Lord Stanley, Her Majesty's Principal Secretary of State for India.

The Respectful Memorial of the undersigned Mercantile Inhabitants of Bombay,

Sheweth,—That on the 14th of March instant, the mercantile community of Bombay were taken by surprise by the publication of a *Government Gazette Extraordinary*, notifying that, in accordance with instructions received from the Supreme Government of India, a new scale of customs duties largely increased would come into immediate operation,—in effect, be enforced on the very day of the issue of the Notification.

Your Lordship will of course have been furnished direct from the seat of Government with a copy of the Bill embodying these alterations, which has passed the Supreme Council, and become law.

Your Lordship will have observed that the duties upon British manufactures are so largely increased, that in some instances, as in the case of piece goods, they are doubled, in others quadrupled.

The effect of this unlooked for and peremptory change is utterly to derange all transactions entered upon under the tariff now abolished. A very large proportion of the piece goods now in transitu from England is sold to arrive, deliverable, that is, duty and all expenses paid, to the purchaser, at a price fixed at the time of contract.

In order to provide against the obvious injustice of the importer being called upon to pay the extra duty now claimed, the Governor General has introduced a clause into the new Act, providing that the purchaser shall pay the extra duty:—

"And whereas contracts or agreements may have been made for the sale or delivery of goods, on which increased or additional duties are imposed by this Act, and which con-

tracts or agreements may have been made without reference to such increased duties, and thereby the several contractors may be materially affected: It is therefore further enacted, that if any person shall, by virtue of any contract entered into before the passing of this Act, be bound to deliver, at any time after the passing of this Act, goods hereby made liable to an increased or additional rate of duty, and shall, upon the importation or exportation of any goods which he may deliver on performance of such contract, pay a rate of duty higher than that which was imposed by law on such goods at the time when the contract was entered into, every such person is hereby authorised and empowered to add to the price of such goods a sum equal to the difference of the duty paid under this Act, and the duty which would have been payable under the laws in force when the contract was entered into; and shall have the same remedy for the recovery of such sum as if the same had been part of the price agreed upon."

Your memorialists are not aware whether this arbitrary provision can be enforced by action in the Supreme Court; but they respectfully submit that retrospective legislation of this nature is opposed to the constitution of the laws of England.

By removing the onus of the new levy, moreover, from the importing merchant, and placing it upon the purchaser of the goods, an equally flagrant injustice would be committed. The trade in piece goods is carried on by the native dealers on the narrowest margin of profits, passing through innumerable hands until the supplies reach the consumer. To follow the exact duty through all the sub-divisions of resale would be impossible; and hence we believe that the impost would practically fall upon those who had to pay it to the Customs, viz. the importers.

In the case of goods not yet arrived, the importer must necessarily be burdened with the additional cost represented by the new duty, and which could not be contemplated at the time of entering upon his purchases.

Your memorialists would further urge the extreme impolicy of placing further imposts upon the trade in British manufactures. The existent high prices of cotton, which are too likely to be maintained, have already caused a consider-

able enhancement in the price of cotton goods to the native consumers, the great bulk of whom consist of the indigent laboring classes, already taxed so heavily. The proposed extra duty must, of course, eventually fall upon them, and a check upon the progress of a trade so invaluable to England, so important likewise for her shipping interests, must, we think, eventually ensue. At present, with the addition of the extra 5 per cent. duty, cotton piece goods cannot be sold at a profit; and the profits upon this trade, upon an average of years, are so extremely small, that of all others it is least capable of sustaining the weight of further taxation.

Your memorialists would venture to call to your Lordship's recollection that a large proportion of the piece goods imported into India have been manufactured out of Indian-grown cotton. Already competition in this great field of industry has commenced in India, and factories for the manufacture both of goods and yarns have been constructed, and are in course of construction. England has to oppose superior skill and continuous improvements of machinery to the cheap labor and cheap cotton grown on the spot in India. The result has yet to be seen; but with the heavy burden of 10 per cent. duty imposed upon her productions, it is not difficult to foretell what the result must be.

Your memorialists, well acquainted with this particular branch of trade, would also venture here to reiterate that its average profits are *extremely* small. A contrary impression appears to prevail with the Supreme Government, owing to the fact, that in the early part of the present year very remunerative prices were realised, and a large extension of import has taken place. In the year 1854-55, however, very ruinous losses were experienced in the Indian markets, owing to the heavy excess of imports; and it is principally to the reaction, consequent upon subsequent diminished supplies, that we owe the extension of trade in the present year.

Your memorialists beg to refer your Lordship to the following paragraph from the address of His Lordship the Governor General to the Legislative Council in introducing this Bill:—

"An exception had been made in favour of cotton yarn. That was only a half manufactured article; but it was an article which tended to the promotion of native industry,—

the trade in it had not yet taken so full a hold as the fully manufactured article to which he had just adverted; and he thought that the Government would act wisely in fixing the duty upon it at no higher figure than 5 per cent."

These remarks appear to have been made under a misapprehension of the facts. The imports of yarn must diminish as English manufactured goods enter more extensively into native consumption. Moreover, the manufacture of yarns upon the spot is progressing fast, and English spun yarns subject to an import duty of 5 per cent. will be unable to compete with them.

With respect to the largely increased duties on groceries, oilman's stores, provisions, hams, cheeses, apparel, &c., your memorialists will content themselves with remarking, that owing to the great influx of European troops consequent upon the mutiny in India, the prices of supplies of all descriptions, labor, &c., have been so enormously enhanced, that English residents generally are now placed under a scale of expenditure quite disproportionate to their means. It is proposed to press upon them still more heavily. Your memorialists would venture to hope that the impolicy and injustice of such a step will be apparent to your Lordship.

In conclusion, your memorialists would venture respectfully to express a hope that the commercial policy of Her Majesty's Government in India will not be inaugurated by a departure from those principles of free trade which are now recognised in England as the basis of commercial prosperity. They would respectfully urge upon your Lordship, that if left to its free development, aided by those improvements in internal communication which are contemplated by the Government over which your Lordship presides, a great extension to the import trade of India may confidently be anticipated. With no less confidence do your memorialists look forward to a vast development of the capabilities of India in the growth of produce of every description.

Upon the wealth *resulting* from commerce and industry left as far as possible unburdened, your memorialists would suggest that a system of direct taxation should be carried out. They would strongly urge upon the notice of your Lordship (although somewhat foreign to the purport of this memorial), that under the present system of taxation in India

the imposts bear heavily upon the producing classes, and let the rich man go free. Upon the extensive classes of wealthy natives engaged in mercantile pursuits who have acquired their possessions and are protected in the enjoyment of them under British supremacy, taxation scarcely falls. We would advocate taxes which would fall with equal weight upon the moneyed classes of Europeans and natives.

As a mercantile body, liable to be primarily affected by such an impost, your memorialists do not hesitate to recommend the imposition of a revised Stamp Act, extended in its application to bills of exchange and cheques. A succession tax also suggests itself to your memorialists as desirable and easy of collection.

Influenced by the above considerations, your memorialists respectfully pray that your Lordship will be pleased to issue instructions to the Supreme Government of India to annul the new Customs Act, which is the subject of this memorial, and to order the refund of all additional duties which may have been collected under its authority in the interim.

And your memorialists shall ever pray, &c.

(Signed) By almost all the European and Native Mercantile Community of Bombay.

No. 27 of 1859.

To B. H. Ellis, Esq.,
Acting Secretary to Government.

Sir,—Government having declared its inability to suspend the operation of the new Customs Act, I am directed by the Committee of the Chamber of Commerce to request that you will draw its attention to the following statement:—

When Act IX. of 1845, fixing new rates of duties to be levied from and after the 1st June 1845, came into force here, it was ruled by the local Government that the cargoes of all vessels which *entered* before the 1st June should be subject to the old duties, while those of vessels entering on or after the 1st June were to be changed with the new rates.

Under these circumstances, the Committee of the Chamber would pray, that in applying the new Customs Act, a similar course should now be adopted by Government in respect to goods imported on ships entering previous to the 14th inst.—I have the honor to be, &c.,

(Signed) JOHN MAWSON,
Secretary.

Bombay Chamber of Commerce, 23rd March 1859.

No. 1365 OF 1859.

REVENUE DEPARTMENT.

To J. MAWSON, Esq.,
Secretary to the Chamber of Commerce.

SIR,—I am directed by the Right Honorable the Governor in Council to acknowledge the receipt of your letter, No. 27, dated the 23rd ultimo, and to inform you, that the Government of India have intimated that in Calcutta all uncleared goods, including those in bond, were charged with the new rates of duty on the 12th ultimo, and have directed that the same practice be observed here from the 14th idem.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 11th April 1859.

To ROBERT RYRIE, Esq.,
Chairman Chamber of Commerce, Bombay.

SIR,—I am directed to acknowledge the receipt of your communication, dated 26th March, in reference to the sudden augmentation of the customs duties by the Legislative Council of India, and to state that a meeting of the Committee was immediately called to take the matter into consideration; but owing to the interruption at the period, incidental to the Parliamentary elections then about to

commence, the subject was not so fully gone into as might have been desired, and will have to be resumed at some future meeting; but I am desired to add, that so far as the opinion of the Committee could be ascertained, the circumstance of the sudden determination, without previous notice of any such intention on the part of the authorities, to increase the duties, is only in accordance with the course usually adopted by the Chancellor of the Exchequer on such occasions in this country, and may have been, they conceive, in some measure justified by the urgency and the peculiar position of the treasury.—I am, &c.,

(Signed) T. M. MYERS,
Secretary.

East India and China Association, Liverpool, 2nd May 1859.

To ROBERT RYRIE, Esq.,
Chairman Chamber of Commerce, Bombay.

SIR,—I am directed by the President to acknowledge receipt of your printed letter of 26th March, with its enclosure, relative to the increase of duties on imports into India, and I am directed to say that this Chamber will confer with the Manchester Chamber and the East India Association here, with a view to combined action on the subject.—I am, &c.,

(Signed) ROBERT TRONSON,
Secretary.

Chamber of Commerce, Liverpool, May 10th, 1859.

No. 71 OF 1859.

To H. YOUNG, Esq.,
Chief Secretary to Government, Bombay.

SIR,—By direction of the Committee of the Chamber of Commerce, I have the honor to draw your attention to the classification of goods under the general heads 14 to 19, in Schedule A, Act VII. of 1859, as set forth in the accompanying circular issued by the Commissioner of Customs, and

which would appear to be hardly in accordance with the views expressed by the Governor General in Council on introducing the measure, or with what the Chamber believes to have been the intention of the Act.

The Chamber would respectfully submit, that the terms "Millinery, Haberdashery, and Hosiery" must be held to mean such articles as are ordinarily made use of by Europeans as articles of dress, wholly or in part made up; and the Calcutta Board have apparently taken also this view of the case, as the Chamber learns from the Commissioner of Customs, that since the publication of the circular in question he has been authorised by letter to admit the following articles as unenumerated, paying only 10 per cent. duty, namely,—

Lenoes, Lappets, and Book Muslins, Plain or Striped.
Printed Muslins, of 20 yards and upwards.
Do. do. do. 10 to 16 do.
Do. Cambrics, do. 20 to 28 yards.
Do. do. do. 9 to 12 do.
Do. do. Tents.
Dhoties and Scarfs in pairs.
Scarfs and Dhoties, single, for native use.

This, however, still leaves a great variety of goods in a doubtful position as to duty, and I might mention the item of cotton handkerchiefs of all sorts as being in this predicament.

As it would be clearly impossible to define where a scarf ended and a handkerchief began, the Chamber would suggest that it would tend to greater simplification, if the more intelligible terms "Articles of Dress wholly or in part made up, and suited for the use of Europeans," were substituted for the words "Millinery, Haberdashery, and Hosiery." The *materials* of millinery, requiring considerable labour being bestowed upon them in the country prior to their being fit for use, would then be admitted at the lower rate of duty as unenumerated articles.

It appears also to the Chamber inexpedient that the mere circumstance of a piece of cloth being cut into lengths, as customary in certain trades, should subject it to the double

duty, as it would necessarily be easy to import the articles in question in double lengths, leaving them to be cut in the country; but meanwhile the goods on the way would be subjected to a heavy tax from which those arriving six months hence would be free: the effect, therefore, of the present definition, would be extremely partial in its application, and in the event of the articles in question not being readily saleable, considerable loss might be sustained by the present importers, without any commensurate advantage to the revenue.

Upon Schedule 16, the Chamber has only to remark upon the subject of Dates (No. 13), that they are consumed by a large class of natives as ordinary food,—indeed as a necessary of life by some of the poorer classes; and they ought not therefore to be regarded as "Oilman's Stores," unless imported as such in bottles or very small packages.

The Chamber observes that the interpretation of the Act is vested in the local executive; and as it will be almost impossible to enumerate singly every article likely to be imported into a place of such considerable business as Bombay, they would respectfully urge the desirability of some definite principle being adopted in the application of the different rates of duty; and they would suggest that the Commissioner of Customs be empowered to confer with such Members of the Chamber as may be nominated as a Committee to consult with him on the subject.

The existing uncertainty as to the duty that may be leviable under instructions from Calcutta must naturally have a prejudicial effect on this branch of trade, and the Chamber trusts that some decisive action may be brought to bear on the subject with as little delay as possible.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay Chamber of Commerce, 1st July 1859.

No. 2605 OF 1859.

REVENUE DEPARTMENT.

To H. BROOKE, Esq.,
Secretary to the Chamber of Commerce.

SIR,—I am directed to acknowledge the receipt of your letter, No. 71, dated the 1st instant, and in reply to state, that the Right Honorable the Governor in Council gladly accedes to the suggestion therein made, that a Committee of the Chamber be authorised to confer with the Commissioner of Customs, Salt, and Opium, regarding the classification to be adopted under the new rates of duty.

2. Mr. Spooner will be directed to submit a report embracing all points of doubt, and showing the opinion of the Committee of the Chamber as well as his own. Definite orders will then be issued by this Government, or instructions obtained from the Government of India, if necessary.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 6th July 1859.

Standing Order No. 640.

With reference to the printed Notification containing a list of the various items classed under the General Heading noted in the margin, it is hereby notified, that the articles mentioned in that list refer only to articles used by ladies and gentlemen, and not to common and cheap items intended for the use of Natives.

Act VII. of 1859. No. 15, Haberdashery, Millinery, and Hosiery.

2. Common and cheap cotton handkerchiefs, although they may be cut into single pieces, will accordingly pay only 10 per cent.; so likewise will common scarfs, dhoties, sarries, and such like articles, used by Natives or poor persons.

(Signed) RICHARD SPOONER,
Commissioner of Customs, &c.

Bombay, 18*th July* 1859.

To the Chairman of the Bombay Chamber of Commerce.

Sir,—The receipt of your letter of the 26th March, with its accompaniments, has already been acknowledged; and having since laid it before a full meeting of this Association, I am desired to express regret that at the time of its arrival the attention of all parties in this country was so much occupied with the threatening appearance of matters on the Continent of Europe, and with the elections consequent on the dissolution of Parliament, as to prevent any consideration of the matter referred to by you.

In consideration of the very depressed state of their treasury, and the absolute necessity that existed for an immediate increase of revenue, this Association cannot agree with you in the strong condemnation of the Government of India for increasing the duties on imports.

You remark strongly on the suddenness of the change, and on no notice having been given of the intended increase of duties; but this Association are of opinion that this course was the right one, as it was the only way by which an immediate increase of revenue could be insured, and no notice could have been given which would have satisfied all parties. Moreover, if notice had been given, the object of the Government would in part have been defeated; and the course adopted appears to be in keeping with what is the invariable custom in this country upon a change in duties, the same taking effect from the date of its being made known by the Chancellor of the Exchequer.

This Association, in expressing their disapproval of the clause in the Act fixing the extra duty upon the buyer of goods "to arrive," such having the appearance of interference between buyer and seller, are of opinion, that if the extra duty had been levied in the form of an excise duty, the difficulties to which the attention of this Association has been called would not have arisen.

This Association have, however, agreed to address the Council of India; but, for the reasons given, their remarks are necessarily confined to the inexpediency of raising a permanent revenue by increased duties upon imports of British and other manufactures, and to the expression of the hope

that the recent extra duties may be removed at the earliest possible period.—I am, &c.,

(Signed) PETER EWART,
Chairman.

East India and China Association, Liverpool, May 31st, 1859.

To the Right Honorable LORD STANLEY,
Secretary of State in Council of India,
East India House, Leadenhall Street, London.

MY LORD,—The attention of this Association having been drawn to the late increased customs duties in India, I have been requested to convey to your Lordship their sentiments with reference to this measure, which, in the opinion of the Association, may so seriously affect the commercial interests of that country.

The Association are deeply sensible of the difficulties in which the Indian Government were placed, and of the necessity for an immediate increase of revenue. They are of opinion, also, that the imposition of extra duties on imports and exports was warranted by the necessities of the time; and, as such, the Association hope they may only be considered of a temporary character, and be retained no longer than may be absolutely necessary; the Association being strongly impressed with the belief that any permanent augmentation of the customs duties in India cannot be otherwise than detrimental to its commercial prosperity.

The Association do not presume to point out the various other sources of revenue which may be made available, seeing that your Lordship's attention has already been directed to the subject; but they would respectfully urge the necessity for removing every obstacle to the extension of trade in India, and therefore the expediency of repealing the increased duties at the earliest possible moment.—I have the honor to be, &c.,

(Signed) PETER EWART,
Chairman.

East India and China Association, Liverpool, 31*st May* 1859.

APPENDIX L.

THE DRAWBACK SYSTEM.

No. 2399 of 1859.

REVENUE DEPARTMENT.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—I am directed to forward herewith copy of a letter from the Secretary to the Government of India, No. 1140, dated the 9th instant, and of its accompaniment, and to request that the Chamber of Commerce will favor Government with a reply to the question in the last paragraph of Mr. Grey's letter.—I have the honor to be, &c.,

(Signed) B. H. ELLIS,
Acting Secretary to Government.

Bombay Castle, 23rd April 1859.

No. 1140.

From W. GREY, Esq.,
Secretary to the Government of India,

TO THE SECRETARY TO THE GOVERNMENT OF BOMBAY.

SIR,—I am directed to forward the accompanying Extract of a Despatch from the Right Honorable the Secretary of State, regarding the present practice of allowing drawback of import duty upon goods re-exported, and to request that His Excellency the Governor General in Council may be favoured with the opinion of the Right Honorable the Governor in Council as to the expediency of doing away with the privilege which is now allowed in that respect.

HOME DEPT. Sep. Rev.

2. I am desired to suggest that it may be ascertained, through the Customs Officers, on the one hand, to what extent the system is attended with inconvenience and disadvantage to Government, and what saving in establishments its abolition would render practicable,—and through the Chamber of Commerce, on the other hand, whether the abolition of the system, under the facilities which the law provides for bonding goods, would be regarded as objectionable by the commercial community, and if so upon what grounds.—I have the honor to be, &c.,

(Signed) W. GREY,
Secretary to the Government of India.

Dated Fort William, the 9th June 1859.

Extract of a Despatch from the Right Honorable the Secretary of State for India, dated the 7th April 1859, *No.* 4.

Para. 15. Her Majesty's Government would suggest to your Lordship the expediency of taking advantage of any general revision of customs duties for doing away with the drawback now allowed on re-exported goods. Such a measure would tend greatly to simplify the Custom House accounts, and might render it possible to effect some reduction in the establishments employed, while it would, at the same time, facilitate the general transactions of the mercantile community with the Agents of Government. The establishment of bonded warehouses at the Presidency towns affords to merchants all the facilities which they can expect for this branch of their transactions.

(True extract)
(Signed) R. B. CHAPMAN,
Under Secretary to the Government of India.

No. 88 of 1859.

To B. H. Ellis, Esq.,
Acting Secretary to Government, Bombay.

Sir,—By direction of the Committee of the Chamber of Commerce, I have the honor to acknowledge receipt of your letter, No. 2399 of 1859, dated 23rd June, referring to the proposed abolition of the existing system of drawback on the re-exportation of goods.

The Chamber has given the subject their most attentive consideration, and has arrived at the conclusion that the proposed abolition of the present system would be in the highest degree inexpedient.

The facilities afforded by the law for the bonding of goods are at present almost wholly inoperative, as no public bonded warehouses exist, nor does there appear any prospect of there being any within a reasonable period; and, apart from the circumstance of there being no available convenient site for warehouses to the extent that would certainly be required, it is felt to be somewhat doubtful whether the great expense of the bonding system, as carried out in England, would not wholly neutralise any prospect there might be of saving in the expenses of the customs establishment.

With the present absence of practical facilities for the proper carrying out of the bonding system, the Chamber believes that any attempt to force its development would result in the greatest inconvenience to a large class of traders interested in the import of the many articles that are re-exported to the Red Sea, Persian Gulf, Muscat, Zanzibar, and Southern Africa, as well to the merchants who, in the form of raw produce, bring the returns from those places to Bombay for the purpose of preparation for export to Europe, and, indeed, to the world at large. Bombay is at present the entrepôt of a very large and important trade in commodities of considerable value, such as coffee, spices, ivory, drugs, &c.; and were the drawback abolished, the trade would be, as far as Bombay is concerned, almost annihilated, as so large a loss as the present rates of duties would inevitably force into existence a direct trade between the places where these goods are produced and the ports in Europe and elsewhere whither they are now

exported from Bombay. Were the system of private bonding to be adopted, it would be extremely costly to keep valuable warehouse room unoccupied while waiting for the arrival of cargoes which might, after all, occupy but a few days in being garbled, sorted, or otherwise prepared for shipment.

Were the bonding system carried out in its integrity, as in England, all goods liable to other than nominal duties would be bonded in warehouses set apart exclusively for the purpose, and in the custody of Government officers; the duties would be paid on very small quantities, to suit the convenience of the retail dealer, and the Government supervision would be costly and vexatious in the extreme. It is not improbable, also, that gigantic frauds on the revenue might and would be perpetrated, and from the voluminous character of the accounts they would be almost incapable of detection.

Under the present system, the revenue is profited to the extent of one-eighth of all import duties, and, as much of the import of British piece goods is re-exported in small quantities, the drawbacks are in many instances not claimed; it is probable, therefore, that the real advantage to the revenue is considerably in excess of the apparent gain of the one-eighth, although that alone has been understood to amply cover the expense attendant on the drawback system. The saving in interest of money must likewise be considerable, as duties are now paid immediately on importation, and the refund does not take place until a considerable period has in every case elapsed.

Even under existing circumstances, the loss of one-eighth of the duty on such articles as spices, paying 20 per cent., must afford a considerable inducement to the promotion and extension of a direct trade with the places of their production; and it might be worthy the attention of Government to consider whether an uniform levy of one per cent. on the amount of tariff valuation would not be as much as the indirect trade now carried on may be capable of bearing; as the Chamber believes, that while the Government would thus profit to a larger extent than they did before the introduction of the new tariff, the risk of injury to the trade by the new scale of duties would be reduced.

In conclusion, the Chamber would respectfully observe,

that any interference with the course of commerce, and which is not called for by the most imperative necessity, is hazardous to the maintenance and security of trade; and as the present system of drawback has been found to work satisfactorily to the merchant, and economically and profitably to the Government, it would, in their opinion, be unwise to attempt any change, unless, indeed, it be, as above suggested, in the direction of a reduction in the percentage at present levied on the re-exportation of goods. It is almost impossible to follow, through their various ramifications, the advantages derived by this or any other port from its being the centre of an extensive commerce; and to view it merely through the limited medium of its direct contribution to the revenue, would be to lose sight of the many financial advantages and civilising influences that must attend the establishment of an extensive intercourse between the inhabitants of countries in a different state of advancement.—I have the honor to be, &c.,

(Signed) H. BROOKE,
Secretary.

Bombay, 11*th August* 1859.

APPENDIX M.

WEIGHTS AND MEASURES.

No. 2465 OF 1858.

GENERAL DEPARTMENT.

MEMORANDUM.—The undersigned presents compliments, and begs to inform the Chamber of Commerce that Government await any observations or suggestions which they may have to offer in reply to the reference made to them under date the 14th May 1857, on the subject of Mr. Bayley's pamphlet respecting an uniform system of weights and measures for the whole of the British territories in India.

(Signed) H. L. ANDERSON,
Secretary to Government.

Dated 9th October 1858.

No. 139 OF 1858.

To H. L. ANDERSON, Esq.,
Secretary to Government, General Department, Bombay.

SIR,—In acknowledging the receipt of your memorandum No. 2465 of 1858, pressing for a reply to the reference made in May 1857 on the subject of Mr. Bayley's pamphlet respecting an uniform system of weights and measures for the whole of the British territories in India, I am directed by the Committee of the Chamber to state, that the subject has been at various times under consideration by the Members of the Chamber. Whatever difference of opinions may exist as to the merit of the suggestions made by Mr. Bayley, and the advisability of carrying them out in whole or in part at some future period, a general impression prevails that many important considerations are involved in the question besides those

which refer merely to a fixing of standards of measures for India. It is, no doubt, desirable that an uniform system of weights and measures should be established, but the question is an imperial one, and regards the whole British empire; and it would be, perhaps, unwise to advocate too hasty changes in India, which might clash with a revised system in England. Two committees (1841 and 1854) of the House of Commons have recommended changes in standards of measure, and the substitution of stones of 14 lb., and cwts. of 112 lb., for stones of 10 lbs. and centeners of 100 lb. It has also been suggested that a decimal system of currency should be adopted; but up to the present time no legislation has taken place upon this important subject. So long as measures of such general importance to our vast empire remain in abeyance, it would be a bad policy to make partial or temporary alterations in the weights and measures in one of Great Britain's dependencies, especially when hopes are entertained that imperial standards may at no distant period be fixed permanently for the whole British empire. The Committee therefore think, that before entering into the considerations raised by Mr. Bayley's pamphlet, it would be desirable that the Government of India should urge on the Government in England a thorough revision of English measures and currency, and an assimilation of a complete decimal system for England and all her dependencies simultaneously. I have the honor to be, &c.,

(Signed) J. N. CROWE,
Acting Secretary.

Bombay Chamber of Commerce, 2nd December 1858.

APPENDIX N.

CLEARING LUNAR DISTANCES.

From Lieutenant Colonel R. Shortrede,
Superintending Assistant to Chief Engineer,

To H. Young, Esq.,
Chief Secretary to Government.

Sir,—I have the honor to bring to the notice of Government a method of clearing Lunar Distances which I have lately perfected. It has the advantages of being short, and strictly correct; and from its general resemblance to the common method for finding the time with which every seaman is familiar, and using the observed quantities with the least possible preparation, and requiring little aid from special tables, it is very easy to work.

With a view to avoid the possibility of mistakes, and to make the whole plain and intelligible, I have printed some forms with directions for use, 100 copies of which I send herewith, and would suggest that some of them should be sent to the Commander-in-Chief Indian Navy, and that he be requested to distribute them among the large number of educated officers under his command, as also some to the Chamber of Commerce and to the Superintendent of the Peninsular and Oriental Company, and that they be requested to report on the merits of the method in the particulars above specified, as compared with the other methods for Lunars hitherto in use.—I have the honor to be, &c.,

(Signed) R. Shortrede, Lieutenant Colonel,
Superintending Assistant to Chief Engineer.

Bombay, 6th May 1859.

APPENDIX O.

THE MHYJEE FAIR.

No. 1955 OF 1859.

JUDICIAL DEPARTMENT.

TO THE SECRETARY TO THE CHAMBER OF COMMERCE.

SIR,—I am directed by the Right Hon'ble the Governor in Council to transmit to you, for the information of the Chamber of Commerce, the accompanying copies of a letter and its enclosures from the Magistrate of Candeish, together with my reply, relative to the last annual Fair held at Mhyjee, in that province.—I have the honor to be, &c.,

(Signed) H. L. ANDERSON,
Secretary to Government.

Bombay Castle, 16*th June* 1859.

No. 863 OF 1859.

JUDICIAL DEPARTMENT.

From S. MANSFIELD, Esq.,
Collector and Magistrate of Candeish,

To H. L. ANDERSON, Esq.,
Secretary to Government, Bombay.

SIR,—I beg to forward, for the information of His Lordship in Council, the report of Lieutenant Bell on the last Mhyjee Fair.

2. Lieutenant Bell's very sensible report requires but a very few remarks. The suggestion contained in his 3rd para. appears judicious, and I shall impress on the Superintendent of the next year's Fair the necessity of carrying it out. The original object

in employing so many Bheels as watchmen was merely to afford them subsistence, but that cause no longer exists. The commencement of the Railway works in Candeish has increased the value of labor of every description to such an extent that no man who will work can fail to obtain a livelihood.

3. His Lordship will be gratified to find, from paras. 5 to 11 of Lieutenant Bell's report, that the amount of business transacted exceeded that of any former years.

4. The account given in his 12th para. of the great consumption of the precious metals by the population of Candeish, I believe to be quite correct. Good seasons, and the high prices of cotton and oilseed for several years past, have produced great prosperity among the ryots of Candeish, and have enabled them to increase their expenditure in the celebration of their marriage ceremonies. This cause, combined with the propensity of buying gold for the purpose of hoarding, has led to the increased consumption of the precious metals. The effect of hoarding on the improvement of the people, and the accumulation of wealth, is too extensive a subject to be discussed on the present occasion.

5. The practice alluded to by Lieutenant Bell in his 13th para. has always appeared to me very absurd, and I shall desire the Superintendent of the next Mhyjee Fair to discontinue it.

6. I would request the sanction of His Lordship in Council to carry into effect the suggestion contained in the 19th para. The expense would be incurred from the funds of the Fair.

7. The small amount of crime, and the successful efforts of the Police in apprehending the culprits and recovering of the stolen property, as detailed in the 20th and 21st paras., is very satisfactory.

8. Should His Lordship in Council see no objection, I shall endeavour to carry into effect the suggestion made in the concluding para.

9. In conclusion, I beg to record the great loss Candeish has sustained by Lieutenant Bell's removal. His intimate knowledge of the native language and character, independent of his other qualifications, make him an invaluable Police officer.—I have the honor to be, &c.,

(Signed) S. MANSFIELD,
Collector and Magistrate.

Candeish, Collector and Magistrate's Camp,
Malligaum, 18th May 1859.

No. 56 of 1858.

From Lieutenant A. Bell,
Superintendent of Mhyjee Fair,

To S. Mansfield, Esq.,
Collector of Candeish.

Sir,—I have the honor to submit the report of the Mhyjee Fair, which commenced on the 18th January 1859, and terminated on the 19th March 1859.

2. For the preservation of order in and about the Fair, the following troops were employed:—

150 Men of the 30th Regiment Bombay Native Infantry, under Captain Moyle.

150 Men of the 1st and 2nd Candeish Bheel Corps.

50 Men of the Candeish Mounted Police.

Besides these some 33 Police Peons, and 143 Chowkeedar Bheels.

3. The Detachments of the 30th Regiment and 1st and 2nd Candeish Bheel Corps furnished guards and picquets in the immediate vicinity of and in the Fair. The Mounted Police had small posts at all the surrounding villages on the main road, and those stationed at Mhyjee were employed in patrolling the Fair at night, and the roads during the day; they further looked after the Chowkeedar Bheels, and saw that they were at their stations. The Police peons were posted in the different streets of the Fair, to preserve order, and the Chowkeedar Bheels had their four stations on each main road, at a distance of two miles apart; the number of these men may be reduced, yet at the same time it must be taken into consideration, the employment afforded to these few Bheels, and the very fact of being so employed, keeps them from their natural tendency to commit crime. I still think though, in spite of these considerations, that as the works on the Great Indian Peninsula Railway have commenced in Candeish, a trial should be made to reduce the Chowkeedars by one half in the next year, and so to do away with them by degrees. The Bheels are a very enduring race, and well able to work, and they should be taught *gradually* to gain entirely their own livelihood, without looking for any assistance from Government.

4. The Fair nominally commenced on the 18th January 1859. The first few days were taken up with religious ceremonies,

which were not attended by so large a concourse of spectators as usual, owing to the abolition of the practice of hook swinging. Some more days elapsed before the real business of the Fair commenced.

5. The amount of business transacted far exceeded that of previous years, and, notwithstanding the dearness of all articles, especially English piece goods, trade was exceedingly brisk; no sooner did consignments arrive than they were immediately bought up.

6. In Appendix A will be found a list of all the articles brought to the Fair, while Appendix B contains a similar list of all that remained unsold.

7. The total of business transacted during the Fair amounted to Rs. 50,33,126-14-0, being more than those of the previous year by Rs. 17,75,162-10-0.

8. The value of the goods remaining unsold at the end of the Fair was Rs. 62,778, being more than that of the preceding year by Rupees 46,103.

9. The state of the cotton market was not very favorable. The year's crop was an average one, but owing to unfavorable advices from Europe, and the tightness of the money market in Bombay in the early part of February, and the enormous increase in the cost of carriage, a very small amount of business was transacted.

10. The cotton sales for the year under report, as compared with the previous year, are as follows:—

In 1859, Rs. 4,04,136-2	Difference.
In 1858, „ 1,69,528	Rs. 2,34,608-2-0

11. Both the early and late grain crops were above the average, and the business in these was exceedingly brisk.

12. I would beg to draw your attention to the comparatively large sum expended by the ryots at the Fair in gold, silver, and jewels, being nearly three (3) lacs of rupees. I have been given to understand by traders in the precious metals, that for several years past the ryots in Candeish have bought as much as fifteen (15) lacs worth of gold and silver per annum; which I suppose represents a portion of the profits they have derived from the cultivation of cotton, oilseed, &c. It is gratifying to know that the ryots are not in that depressed state represented by gentlemen at home who profess to keep the English public informed of the actual state of India, but it is perhaps not so gratifying to find that the people are still so unenlightened as to invest their savings in

such a manner as to yield them no return. I believe I am correct in saying that not a single native in Candeish, either rich or poor, even thinks of investing his savings in the Public Securities, or in the Banks or any other institutions in Bombay, which are known to be safe and extremely profitable. This want of confidence I presume is owing to the state of ignorance of the population, and the reminiscences of the anarchy and misrule under the native princes which compelled them to sink their savings in the purchase of the precious metals, which could easily be concealed, and at the same time be immediately available in seasons of scarcity.

13. Before leaving this part of the subject, I would beg to draw your attention to the very curious practice which has prevailed among my predecessors when reporting the results of the Fair, of adding the amount of banking transactions to the value of the goods sold. As the great bulk of the dealers come from long distances, it is very natural they should prefer being paid by hoondees instead of cash, which they would run a considerable risk of being robbed of on their return journey; a person thus situated sells his goods for 10,000 rupees and gets a hoondee for the amount, and according to the present practice the transaction is entered twice over—1st, in the value of the article sold, and 2nd, the amount of the produce purchased by the money it fetched. All the banking transactions at the Fair are connected with the sale of goods twice, and I cannot see what good can be derived from entering in the total traffic account the amount of hoondees purchased, which are only the medium through which the goods are paid for. As it has been usual to enter the amount of these transactions, I have done so this year, but I would respectfully suggest that the practice be discontinued in future.

14. The following are the gross receipts and disbursements at the Fair:—

		Rs.	*a.*	*p.*
1.	Last year's balance	169	15	10
2.	Opium sold by Government	140	2	0
3.	Fines	18	0	0
4.	Dewanee Register Fees paid by the Judge of Candeish	37	0	0
5.	Balance refunded from the sum advanced for erecting the Tramway	23	1	6
6.	Sale of Stalls of absent owners	480	15	0
	Rent of Government Stalls	0	0	0

		Rs.	a.	p.
7.	Stall Tax at 3 annas per haut frontage....	1,475	4	0
8.	Duty paid by vendors of poisonous substances	72	0	0
9.	Do. do. of Ganja	36	0	0
10.	Do. do. of Opium	60	0	0
11.	Intestate Property	10	3	0
12.	Postage Receipts	171	0	0
13.	Sale of Postage Stamps	100	0	0
14.	Liquor Vendor License Fee	800	0	0
15.	Sale of old Guard Huts	0	2	0
16.	Miscellaneous	0	8	0
17.	Castle Pounds Fee	22	7	0
	Total..Rupees	3,616	10	4
	Of these sums credited to Mhyjee Fair	2,126	4	10
	Deduct Disbursements—			
1.	Pay of Chowkeedars	1,230	7	10
2.	Repairs to Kutcherry	2	0	0
3.	Do. of roads leading to the Fair	0	0	0
4.	Making and repairing Guard Shades.....	13	12	1
5.	Removing Tramway Bridge	36	12	8
6.	Putting up Tramway Bridge.....	238	0	8
7.	Pay of 4 Carcoons for keeping Returns of Piece Goods, &c.....	151	10	10
8.	Stationery	23	2	5
9.	Torchman	8	14	5
10.	Crier	0	14	0
11.	Potdar.....	7	1	7
12.	Miscellaneous	5	3	0
	Total..Rupees	1,717	15	6
	Balance in favor of the Fair..	408	5	4
	Total..Rupees	2,126	4	10

15. The following table represents results as compared with 1858 :—

	Receipts.			Disbursements.			Balance.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1859..	2,126	4	10	1,717	15	6	408	5	4
1858..	1,533	1	0	1,363	1	2	169	15	10

The accounts have been prepared according to the new forms furnished by yourself to Captain Birch; some trouble was occasioned in introducing them, but they are a great improvement on the old ones, and will be of great assistance to future Superintendents of the Fair.

16. In obedience to the instructions received from yourself, two (2) surveyors have been employed in making fresh plans of the Fair. I would suggest that when the plans are completed a few copies should be lithographed.

17. The bridge across the bed of the Girna was erected at a cost of Rupees 221-8-6, disbursed from the profits of the Fair.

18. The small sum of Rupees was expended in repairing the roads in the neighbourhood of the Fair. This expenditure, I am humbly of opinion, might be increased with advantage, but the Superintendent of the Fair should visit all the roads six (6) weeks before the Fair commences, and decide where repairs are most required. I believe that owing to the exigencies of the service for some years past, this duty has been entrusted to an underpaid Carcoon, and therefore very imperfectly performed.

19. I think it would also be very desirable if trees were planted on each side of the large roads to the Fair. At present there is a great want of shade, which is a serious inconvenience to the great number of natives who have no means of shelter of any kind; should you approve of it, I will expend 200 rupees during the ensuing monsoon in making plantations.

20. I have great satisfaction in recording the small amount of crime during the two (2) months the Fair lasted. There were only twenty thefts, and the total value of stolen property was Rupees 50-5-0.

21. The culprits in 18 cases were apprehended, and property to the value of Rupees 37-11-11 was recovered.

22. I am sorry to say fire occurred in a grocery store, and Rupees 6,150 worth of property was consumed. As you are aware, all the shops are held in booths, and whatever precautions may be taken, and rules made, the whole of them and the merchandise they contain might be burnt by an accidental spark. Fortunately, on the occasion above referred to, there was no wind, and the fire was put out without further injury than destroying the property in the shop it occurred. This, however, must be considered a most fortunate occurrence, and I would suggest for your consideration the propriety of inducing the traders to build

permanent stalls. If you were to use your influence with the principal traders, they would, I think, not hesitate to act in accordance to your wishes, and the great body of the shopkeepers would gradually follow their example. The Railway will pass within a couple of miles of the Fair, and I have little doubt the trade will greatly increase when it is completed, and this, therefore, appears the most favorable time for introducing the change. —I have the honor to be, &c.,

(Signed) ALEXANDER BELL, Lieutenant,
Superintendent Mhyjee Fair.

[MEMO.—The Appendix, being somewhat voluminous, has not been printed, but may be referred to at the Office of the Chamber.]

No. 1944 OF 1859.

JUDICIAL DEPARTMENT.

TO THE COLLECTOR AND MAGISTRATE OF CANDEISH.

SIR,—I am directed to acknowledge the receipt of your letter, No. 863, of the 18th May last, submitting a copy of a Report on the last Mhyjee Fair, and to forward to you the following copy of the Resolution of Government on the subject.

The Right Hon'ble the Governor in Council has read Lieutenant Bell's very clear and intelligent Report on the Mhyjee Fair in 1859 with great satisfaction.

2. The amount of business transacted at the Fair exceeded the returns of any former years; the value of the goods sold amounted to more than half a million sterling. But there is no fact more gratifying than that alluded to in the 12th para. of the Report, of the hoarding of savings by the ryots. The purchase of jewels and gold and silver ornaments constitutes, it may be admitted, an unprofitable investment, but the facts that ryots have money to save and are inclined to save it, are an evidence of progress which cannot but be regarded with pleasure. Increase of wealth and facility of communication bring increase of intelligence, and it will probably not be many years before those who now accumulate jewels will seek more productive investments, especially when increased intelligence has led to its invariable consequence, the creation of secondary wants.

3. The Right Hon'ble the Governor in Council approves of the Magistrate's intention of reducing the number of Chowkeedar Bheels employed at the Fair.

4. The sanction of Government may be accorded to the disbursement of Rupees 200 from the Fair Funds for the expense of planting trees.

5. His Lordship in Council considers that if traders could be induced to build permanent stalls, a very great end would be gained, and he fully approves of the Magistrate's intention of exerting his influence for the attainment of this object.

6. The comparative absence of crime at the Fair is very satisfactory, and reflects credit on the Police.

7. Lieutenant Bell has, since the date of his Report, been promoted to the command of the Kolapoor Infantry, but the Right Hon'ble the Governor in Council requests that the Magistrate will communicate to him the commendation of Government for the care with which his Report has been prepared, and for the zeal with which he has performed his duties as an Assistant Superintendent of Police in Candeish.

8. Copies of these Reports should be forwarded to the Chamber of Commerce, and to Her Majesty's Secretary of State for India.—I have the honor to be, &c.,

(Signed) H. L. ANDERSON,
Secretary to Government.

Bombay Castle, 16*th June* 1859.

APPENDIX P.

SALTPETRE.

Extract paras. 2 to 9 from a Letter from the Collector of Hydrabad to the Commissioner in Sind, No. 772, dated 4th May 1858.

2. During the past year about 110 Saltpetre Pans were employed in this Collectorate, chiefly the property of two native firms, and the yield of Saltpetre amounted to 6,000 maunds. The Pans are in use for five or six months, from December to May; during the remainder of the year they cannot be worked, as the men employed, being cultivators, return to their fields.

3. One Pan produces on an average 55 maunds of Saltpetre during the working season, at a cost as follows:—

	Rs.
Pay of 4 or 5 workmen for 5 months	100
Wear and tear on Saltpetre Pan for a season	20
Wear and tear on Donkeys employed in carying Fuel and Salt earth, and on Saddles	10
Digging Implements	10
Carriage of 55 maunds, or the yield of one Pan, from place of production to Bombay	20
28 Bags for packing	14
Miscellaneous expenditure, including cost of superintendence and interest of money	26
Total expenditure for a season on one Pan yielding 55 maunds	200

4. As 55 maunds of Saltpetre will lose about 9 per cent. in weight while in transit, from dryage and other causes, the cost of the article to the producer, when delivered at Bombay, is Rupees 4 per maund.

5. The production of Saltpetre in the Hydrabad Collectorate is principally in the Nowshera and Mahomed Khan's Tanda Deputy Collectorate.

6, The Pans are worked on the sites of ruined villages, where salt earth is abundant. No tax is levied by Government, but the right to take a fee on all Pans worked on their lands is claimed by the Zemindars.

7. The capitalists engaged in the production of this article usually make it the Zemindar's interest to afford them active aid in their undertaking, by enlisting him in their service. The capitalist makes an advance of money, and furnishes the Pan and the necessary live and dead stock, while the Zemindar finds the labor, and the Saltpetre produced is made over to the capitalist at a certain rate per maund in liquidation of the advance. Where this compact is entered into, the Zemindar levies no fee, but in other cases he receives about 5 Rupees per season on each Pan.

8. The manufacture of Saltpetre in this district is capable of great extension, all that is required being a steady demand for the article at a remunerative rate.

9. The working of a Saltpetre Pan does not all at once become remunerative. When a Pan is set up in a new locality, the daily yield is only 5 seers, but the longer the manufacture continues in one place, the greater is the rapidity with which the Saltpetre accumulates in the surrounding soil, and after a few years, the daily yield rises to 20 seers.

No. 303 OF 1858.

REVENUE DEPARTMENT.

The Commissioner in Sind has the honor to forward the above true Extract to the Right Honorable the Governor in Council for communication to the Chamber of Commerce, Bombay, in continuation of the Acting Commissioner's Memorandum No. 100, of the 22nd April 1857.

(Signed) H. B. E. FRERE,
Commissioner in Sind.

Commissioner's Office, Kurrachee, 31st July 1858.


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